



Scottish House Condition Survey

Revised Key Findings 2007



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Key Findings for 2007

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Introduction

1. The Scottish House Condition Survey (SHCS) is the only national survey of housing undertaken in Scotland. It combines both an interview with occupants and a physical inspection of dwellings to build a picture of Scotland's occupied housing stock which covers all types of dwellings across the entire country - whether owned or rented, flats or houses.
2. This is the fourth 'Key Findings' Report to be produced since the SHCS changed to a continuous format in 2003. Prior to 2003 surveys were conducted in 1991, 1996 and 2002 and typically consisted of sample sizes of around 15,000 paired social and physical households and their dwellings.
3. The continuous format was introduced to allow more flexibility of content and to assist in the monitoring of Ministerial targets. The 2003/4, 2004/5, 2005/6 and, now, the 2007 surveys each gathered data from almost 4,000 households and dwellings with paired social and physical data available for around 3,000 of these. A similar sample size to the previous surveys (15,000 cases) should be achieved over a five year period.
4. These results are based on fieldwork from January to December 2007. Given the smaller sample size, compared to earlier surveys, it is not possible in an annual report to provide in-depth estimates for a number of topics. So this report sets out key high-level national estimates relevant to a number of significant policy areas.
5. The report is divided into 5 sections:
 1. Key Indicators of the Scottish Housing Stock – this covers basic issues such as dwelling type by age and data improvements including analysis introducing emulated energy performance certificates (EPCs), council tax and whether a dwelling is on or off the gas grid;
 2. Energy Efficiency – analysis of the energy efficiency of the housing stock is presented - based on both the National Home Energy Rating (NHER) and the UK Government's Standard Assessment Procedure for the Energy Rating of Dwellings (SAP) We have also included an analysis of emulated EPCs in preparation for their introduction in 2008;
 3. Fuel Poverty – this section presents an analysis of the number and characteristics of households considered as being fuel poor in 2007;
 4. Housing Quality – this part of the report provides estimates of the number of dwellings passing and failing the Scottish Housing Quality Standard (SHQS). It also covers dampness, condensation and disrepair;

5. Notes and Definitions - the final section provides information about the content of the survey and the key concepts used in this document. Discussion on the reliability of the estimates is also included.
6. Care needs to be taken with the comparison of estimates from this report with those from the 2002 survey. Some features of the survey have not altered, consisting, as it does, of a social interview followed by a physical inspection. However, the use of continuous year-round fieldwork is a fundamental change in the methodology and cannot be discounted as a possible explanation of change.
7. For 2007 to 2009, the SHCS changed contractors from the Office for National Statistics to Ipsos-MORI. We can not discount the possibility that this may have caused some year on year changes.
8. Also, care must be taken in comparing dwelling numbers between each survey year as the base number of occupied dwellings changes. The number of occupied dwellings for each survey year is shown in Table 1. The figures are derived from the GROS¹ estimates of occupied dwellings (2002, 2003/4 and for 2007) and from CTAXBASE² data on chargeable dwellings supplied by each of Scotland's LAs (2004/5 and 2005/6).

Table 1: Base number of dwellings by survey year (2002-2007) (000s)

| Survey Year | 2002 | 2003/4 | 2004/5 | 2005/6 | 2007 |
|------------------|-------|--------|--------|--------|-------|
| Dwellings (000s) | 2,192 | 2,269 | 2,301 | 2,315 | 2,314 |

9. Increases in occupied dwellings can give the impression that more dwellings now fall into certain categories (more owner occupiers for example) so it may be important to compare rises in proportion as well as numbers.
10. The SHCS is a sample survey. All survey figures are therefore estimates of the true prevalence within the population. For some estimates, error bars and confidence intervals (CIs) have been provided to assist analysis. Paragraphs 94-103 in the Notes and Definitions section provide further discussion of confidence intervals and errors associated with sampling.

¹ <http://www.gro-scotland.gov.uk/statistics/household-estimates-projections/index.html>

² <http://www.scotland.gov.uk/Topics/Statistics/Browse/Local-Government-Finance/DatasetsCouncilTax>

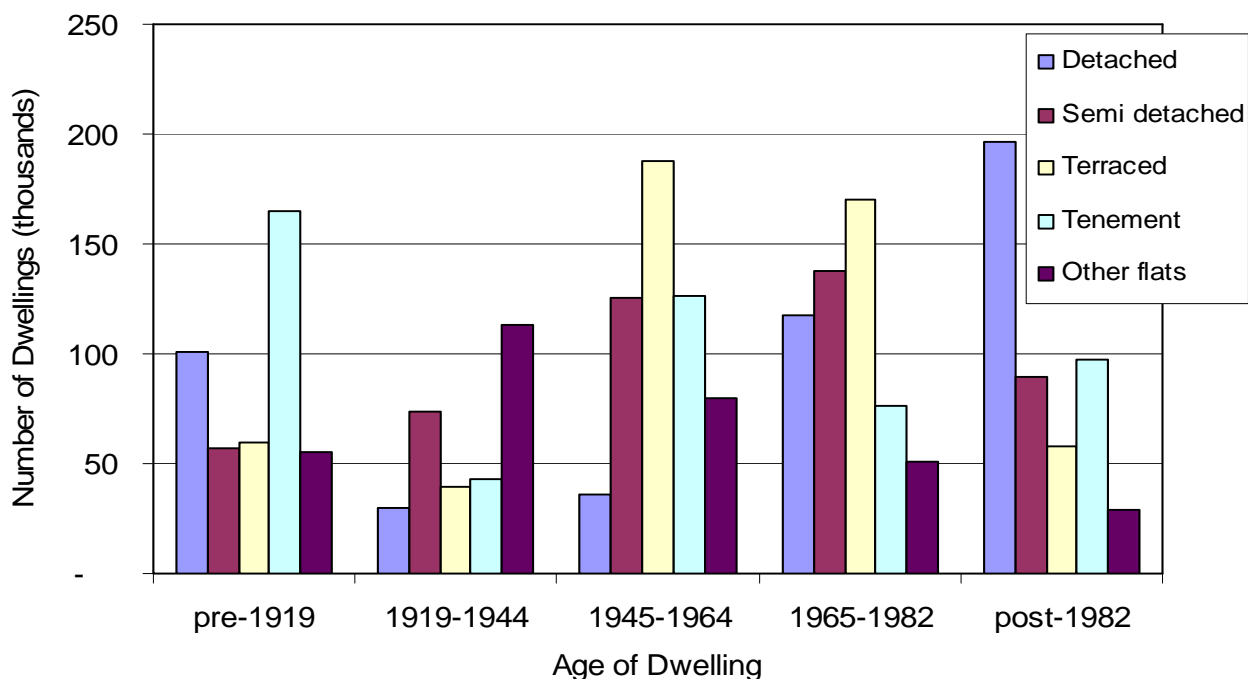
1 Key Indicators of the Scottish Housing Stock

11. Tables 2, 3, 4 and Figure 1 show the age of the current housing stock by dwelling type³. They show that detached houses have dominated new-builds since 1982. Definitions of the dwelling types used in the SHCS can be found in paragraph 104.

Table 2: Type of dwelling by age of dwelling (000s)

| Age of dwelling | Type of dwelling | | | | | Total | Un-weighted sample size |
|-------------------------------|------------------|---------------|------------|------------|-------------|--------------|-------------------------|
| | Detached | Semi-detached | Terraced | Tenement | Other Flats | | |
| | 000s | 000s | 000s | 000s | 000s | 000s | |
| Pre 1919 | 101 | 57 | 59 | 165 | 56 | 438 | 570 |
| 1919 - 1944 | 30 | 74 | 40 | 43 | 113 | 299 | 397 |
| 1945 - 1964 | 36 | 125 | 188 | 126 | 80 | 555 | 766 |
| 1965 - 1982 | 117 | 138 | 170 | 76 | 51 | 552 | 700 |
| Post 1982 | 196 | 89 | 58 | 98 | 29 | 470 | 600 |
| Total | 480 | 483 | 515 | 508 | 328 | 2,314 | 3,033 |
| <i>Unweighted sample size</i> | 731 | 664 | 697 | 546 | 395 | 3,033 | |

Figure 1: Type of dwelling by age of dwelling (000s)



³ 'Other flats' is made up of 4-in-a-block, tower/slab and flat from conversion.

Table 3: Type of dwelling by age of dwelling (Row %)

| Age of dwelling | Type of dwelling | | | | | Total | Un-weighted sample size |
|-----------------|------------------|---------------|-----------|-----------|-------------|------------|-------------------------|
| | Detached | Semi-detached | Terraced | Tenement | Other Flats | | |
| | % | % | % | % | % | % | |
| Pre 1919 | 23 | 13 | 14 | 38 | 13 | 100 | 570 |
| 1919 - 1944 | 10 | 25 | 13 | 14 | 38 | 100 | 397 |
| 1945 - 1964 | 7 | 23 | 34 | 23 | 14 | 100 | 766 |
| 1965 - 1982 | 21 | 25 | 31 | 14 | 9 | 100 | 700 |
| Post 1982 | 42 | 19 | 12 | 21 | 6 | 100 | 600 |
| Total | 21 | 21 | 22 | 22 | 14 | 100 | 3,033 |

Table 4: Type of dwelling by age of dwelling (Column %)

| Age of dwelling | Type of dwelling | | | | | Total |
|-------------------------------|------------------|---------------|------------|------------|-------------|------------|
| | Detached | Semi-detached | Terraced | Tenement | Other Flats | |
| | % | % | % | % | % | % |
| Pre 1919 | 21 | 12 | 12 | 32 | 17 | 19 |
| 1919 - 1944 | 6 | 15 | 8 | 8 | 34 | 13 |
| 1945 - 1964 | 8 | 26 | 37 | 25 | 24 | 24 |
| 1965 - 1982 | 24 | 29 | 33 | 15 | 16 | 24 |
| Post 1982 | 41 | 19 | 11 | 19 | 9 | 20 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |
| <i>Unweighted sample size</i> | 731 | 664 | 697 | 546 | 395 | 3,033 |

12. Tables 2 - 4 and Figure 1 show data from the SHCS physical survey. As explained in paragraph 1, in addition to a physical inspection of the dwelling the SHCS also involves a social interview with one of the residents, either the highest income householder (HIH)⁴ or their partner. This 'social' interview covers a range of topics such as household characteristics, tenure, neighbourhood satisfaction, dwelling satisfaction, health status, income etc.

13. Council tax was introduced in 1993 as a replacement for the Community Charge ('Poll Tax'). It places every dwelling into one of eight valuation bands A to H. Any kind of house or flat will count as a dwelling if it is used as such, including second

⁴ The highest income householder is the person who is responsible for the dwelling. If more than one person is responsible for the dwelling, the HIH is the person who has the highest income from all sources (including benefits and other income sources such as dig money etc). If two householders have the same income, the eldest is chosen as the highest income householder

homes that are not let out commercially. Due to the range of values in each band, properties which are not identical in terms of accommodation or size can still be in the same band.⁵

14. It was not possible to determine the council tax band for 48 dwellings; our address did not clearly match an Assessor address.
15. Table 5 shows council tax band by private and social sector tenures. The social sector covers all dwellings rented from a local authority, housing association, housing co-operative or other public sector organisations such as the MOD or Forestry Commission. Private sector dwellings are those which are either owner-occupied or privately rented. It shows that the higher the council tax band the more likely it is that a dwelling is in the private sector - with over 95% of dwellings with council tax band D, E, F, G and H are in the private sector.
16. Almost 50% of dwellings are in Council Tax Bands A and B; only 5% are in Bands G and H.

Table 5: Tenure by Council Tax band (000s and %)

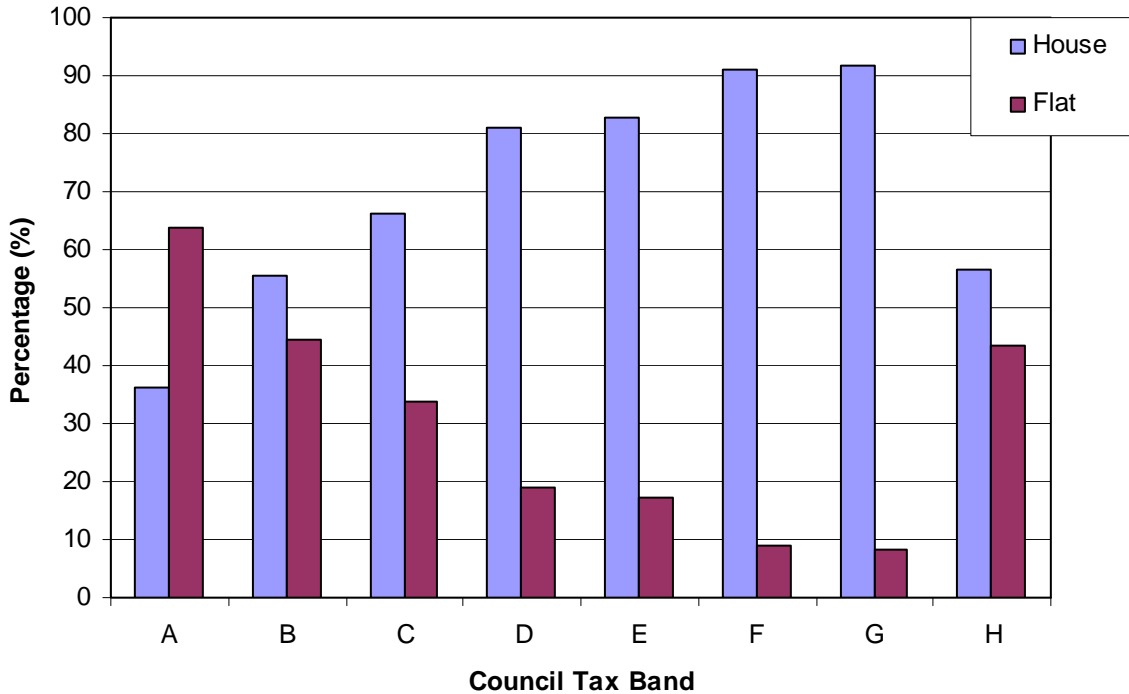
| Council Tax Band | Tenure - private/social | | | | | | Total | | | Un-weighted sample size |
|-------------------------------|-------------------------|-----------|------------|------------|-----------|------------|--------------|------------|------------|-------------------------|
| | Private | | | Social | | | Count 000s | Row % | Col % | |
| | Count 000s | Row % | Col % | Count 000s | Row % | Col % | | | | |
| A | 187 | 37 | 11 | 315 | 63 | 49 | 502 | 100 | 22 | 671 |
| B | 347 | 59 | 21 | 237 | 41 | 37 | 584 | 100 | 25 | 757 |
| C | 269 | 79 | 16 | 70 | 21 | 11 | 339 | 100 | 15 | 461 |
| D | 288 | 95 | 17 | 14 | 5 | 2 | 302 | 100 | 13 | 389 |
| E | 272 | 98 | 16 | 5 | 2 | 1 | 277 | 100 | 12 | 359 |
| F | 167 | 100 | 10 | | | | 167 | 100 | 7 | 207 |
| G | 105 | 100 | 6 | 0 | 0 | 0 | 105 | 100 | 5 | 130 |
| H | 11 | 100 | 1 | | | | 11 | 100 | 0 | 11 |
| Unobtainable | 24 | 90 | 1 | 3 | 10 | 0 | 26 | 100 | 1 | 48 |
| Total | 1,670 | 72 | 100 | 644 | 28 | 100 | 2,314 | 100 | 100 | 3,033 |
| <i>Unweighted sample size</i> | <i>2,199</i> | | | <i>834</i> | | | 3,033 | | | |

17. Figure 2 shows dwelling Type by council tax band.⁶ Almost two thirds of dwellings in council tax band A are flats whereas over 90% of dwellings with a council tax band of F or G are houses (44% of dwellings in the highest council tax band, band H, are houses and 56% are flats but there were only 15 dwellings in the sample).

⁵ For more information on council tax see the Scottish Assessors website at <http://www.saa.gov.uk/counciltax.html>

⁶ 'Houses' is made up of detached, semi-detached and terraced and 'Flats' are tenement, 4-in-a-block, tower/slab and flat from conversion. Further detail on definitions of dwelling types can be found in paragraph 104.

Figure 2: Type of dwelling by council tax band (%)⁷



18. The SHCS has introduced a new variable which classifies dwellings as either on or off the mains gas grid. Dwellings are classified as on the gas grid if there is a medium/low pressure gas pipe in the mapping area⁸ - a rectangle 300m by 174m (dictated by standard mapping scale and computer screen size).
19. Table 6 shows the figures for whether a dwelling is on or off the gas grid by urban/rural indicator. It shows that 97% of dwellings in urban areas are on the gas grid compared to 41% of dwellings in rural areas. For all dwellings in Scotland, 88% are on the gas grid.
20. The Energy Performance Certificate (EPC) will be introduced in 2009 to promote the improvement of energy efficiency of buildings. Dwellings will be given an energy efficiency rating (EER) on a scale from 'A' to 'G', with 'A' being the most and 'G' the least energy efficient. Every dwelling bought and sold or re-let will have to have an EPC. Using the data collected by the SHCS, dwelling EPCs can be emulated. This section analyses the 'emulated EPC' results. More information about EPCs can be found on the Scottish Building Standards Division web site⁹.

⁷ There are only 15 cases in council tax band H.

⁸ Note this is different from the classification used by Scottish Gas where the dwelling has to be within 23m of a medium/low pressure gas pipe to be on the gas grid.

⁹ http://www.sbsa.gov.uk/european_issues/epcformat.htm

Table 6: Dwellings on/off the Gas Grid by urban/rural indicator (000s and %)

| On Mains Gas Grid | Urban/Rural Indicator | | | | | | Total | | | Un-weighted sample size |
|-------------------------------|-----------------------|-----------|------------|------------|-----------|------------|--------------|------------|------------|-------------------------|
| | Urban | | | Rural | | | 000s | Row % | Col % | |
| | 000s | Row % | Col % | 000s | Row % | Col % | | | | |
| Yes | 1,879 | 92 | 97 | 156 | 8 | 41 | 2,036 | 100 | 88 | 2,476 |
| No | 51 | 18 | 3 | 227 | 82 | 59 | 278 | 100 | 12 | 557 |
| Total | 1,930 | 83 | 100 | 384 | 17 | 100 | 2,314 | 100 | 100 | 3,033 |
| <i>Unweighted sample size</i> | 2,374 | | | 659 | | | 3,033 | | | |

21. Table 7 provides a breakdown of emulated EPC by a number of dwelling and household characteristics. Almost 50% of dwellings in Scotland have an EER of 'D', while no dwelling in the SHCS survey in 2007 is rated 'A'. 16% of detached houses have an EER of 'F' compared with 5% or less for other dwelling types. 52% of dwellings on the gas grid have an EER of band D, while only 24% of those dwellings not on the gas grid have the same rating. Likewise, dwellings in urban areas are more likely to have a higher EER than those in rural areas.

2 Energy Efficiency

22. Energy Efficiency is measured using two methodologies: the National Home Energy Rating (NHER) and the UK Government's Standard Assessment Procedure for the Energy Rating of Dwellings (SAP). The NHER is the most commonly used in Scotland as it considers all energy use and allows for regional and geographical climatic variations. The SAP only considers energy used by heating and hot water (and lighting under SAP 2005), and ignores any regional or geographical variation. Both methods are reported on here.
23. The SHCS uses an enhanced level 0 NHER which rates dwellings on a scale of 0 (poor) to 10 (excellent) based on the total energy costs per square metre of floor area. Further information on NHER and SAP is provided in paragraphs 106-116. More detailed analysis and discussion can be found in the SHCS 2002 National Report¹⁰ and in Energy Efficiency and Estimated Emissions for the Scottish Housing Stock 2003/4¹¹.

¹⁰ Revised energy efficiency figures from the SHCS 2002 National Report are available to download at <http://www.scotland.gov.uk/Topics/Statistics/SHCS/NationalReportChap11>

¹¹ Energy Efficiency and Estimated Emissions for the Scottish Housing Stock is available to download at <http://www.scotland.gov.uk/Publications/2006/12/18132350/0>

Table 7: Emulated EPC by dwelling and household characteristics (Row %)

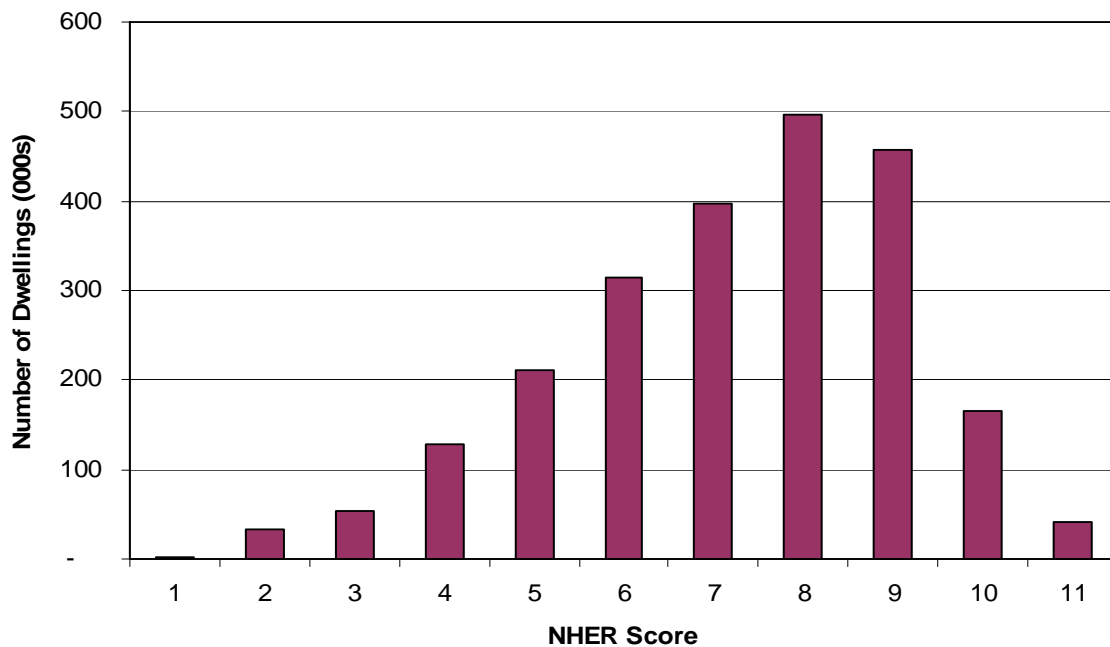
| | EPC Energy Efficiency Rating – Row % | | | | | | | | Total | Un-weighted sample size |
|-------------------------|--------------------------------------|---|----|----|----|----|---|--------------|-------|-------------------------|
| | A | B | C | D | E | F | G | Unobtainable | | |
| Tenure | | | | | | | | | | |
| Private Sector | | 0 | 11 | 47 | 31 | 8 | 2 | 0 | 100 | 2,199 |
| Social Sector | | 1 | 28 | 51 | 17 | 2 | 0 | 1 | 100 | 834 |
| Type of Dwelling | | | | | | | | | | |
| Detached | | | 3 | 41 | 37 | 16 | 3 | 1 | 100 | 731 |
| Semi detached | | | 6 | 49 | 38 | 5 | 1 | 0 | 100 | 664 |
| Terraced | | | 20 | 52 | 23 | 3 | 1 | 1 | 100 | 697 |
| Tenement | | 1 | 29 | 48 | 17 | 3 | 1 | 0 | 100 | 546 |
| Other flats | | 1 | 24 | 52 | 17 | 5 | 1 | 0 | 100 | 395 |
| Age of Dwelling | | | | | | | | | | |
| Pre-1919 | | | 5 | 33 | 38 | 19 | 5 | 0 | 100 | 570 |
| 1919-1944 | | | 16 | 49 | 24 | 9 | 2 | | 100 | 397 |
| 1945-1964 | | 0 | 19 | 51 | 26 | 3 | 0 | 1 | 100 | 766 |
| 1965-1982 | | 0 | 14 | 44 | 37 | 4 | 1 | 1 | 100 | 700 |
| Post-1982 | | 1 | 26 | 63 | 8 | 1 | 0 | 1 | 100 | 600 |
| Gas Grid | | | | | | | | | | |
| On Gas Grid | | 0 | 18 | 52 | 25 | 4 | 1 | 0 | 100 | 2,476 |
| Off Gas Grid | | | 2 | 24 | 44 | 23 | 6 | 2 | 100 | 557 |
| Urban/rural | | | | | | | | | | |
| Urban | | 0 | 18 | 52 | 24 | 4 | 1 | 0 | 100 | 2,374 |
| Rural | | 0 | 6 | 30 | 41 | 17 | 5 | 1 | 100 | 659 |
| All Scotland | | | | | | | | | | |
| | | 0 | 6 | 48 | 27 | 7 | 1 | 1 | 100 | 3,033 |

24. The 2007 SHCS reports SAP using SAP 2001 and SAP 2005. SAP 2005 is the most up to date system for rating the energy efficiency of dwellings. It is scaled from 1 (poor) to 100 (excellent) whereas SAP 2001 has a maximum rating of 120.
25. In 2007 it was not possible to determine NHER and SAP scores for 17 cases in the survey. These cases are excluded from any energy efficiency analysis.
26. Table 8 and Figure 3 show that the most common energy rating of dwellings on the NHER scale is 7. The median, at or above which 50% of dwellings are rated, is 7. Around 80% of dwellings were rated between 4 and 8. Dwellings rated 7 or more are labelled as 'good' energy efficiency. Those rated 2 or less are 'poor'.

Table 8: Dwellings by NHER scores 2007 (000s and Column %)

| NHER Score | 000s | % | <i>Unweighted sample size</i> |
|----------------------|--------------|-------------------|-------------------------------|
| 0 | 2 | 0 | 5 |
| 1 | 33 | 1 | 50 |
| 2 | 54 | 2 | 102 |
| 3 | 127 | 6 | 205 |
| 4 | 210 | 9 | 317 |
| 5 | 315 | 14 | 409 |
| 6 | 398 | 17 | 508 |
| 7 | 497 | 21 | 615 |
| 8 | 457 | 20 | 559 |
| 9 | 166 | 7 | 201 |
| 10 | 42 | 2 | 45 |
| Sub-Total | 2,300 | 99 | 3,016 |
| Unobtainable | 13 | 1 | 17 |
| All Dwellings | 2,314 | 100 | 3,033 |
| Median | 7 | | |
| | | +/- 95% CI | |
| Mean | 6.2 | 6.2 | 6.3 |

Figure 3: Number of dwellings by NHER score 2007 (000s)



27. Table 9 shows that, in 2007, 50% of dwellings were rated 'good' and 4% 'poor'.

Table 9: NHER band 2007 (000s and %)

| NHER band | 000s | % | <i>Unweighted sample size</i> |
|------------------|--------------|------------|-------------------------------|
| Poor (0-2) | 89 | 4 | 157 |
| Moderate (3-6) | 1,050 | 45 | 1,439 |
| Good (7-10) | 1,161 | 50 | 1,420 |
| Unobtainable | 13 | 1 | 17 |
| Total | 2,314 | 100 | 3,033 |

28. Table 10 and Figure 4 show that the energy efficiency of the housing stock has improved. In 2002 an estimated 31% of dwellings achieved a 'good' rating of 7 or above. By 2007 this proportion had risen to about 50%. Correspondingly fewer dwellings were given a 'poor' rating in 2007 than in 2002. The calculation of 95% confidence intervals for these estimates shows that the change in proportions in each NHER band between 2002 and 2007 is statistically significant. The changes in the proportions rated 'good' and 'moderate' between 2004/5 and 2007 are also statistically significant.

Figure 4: Dwellings by NHER bands 2002-2007 (%)

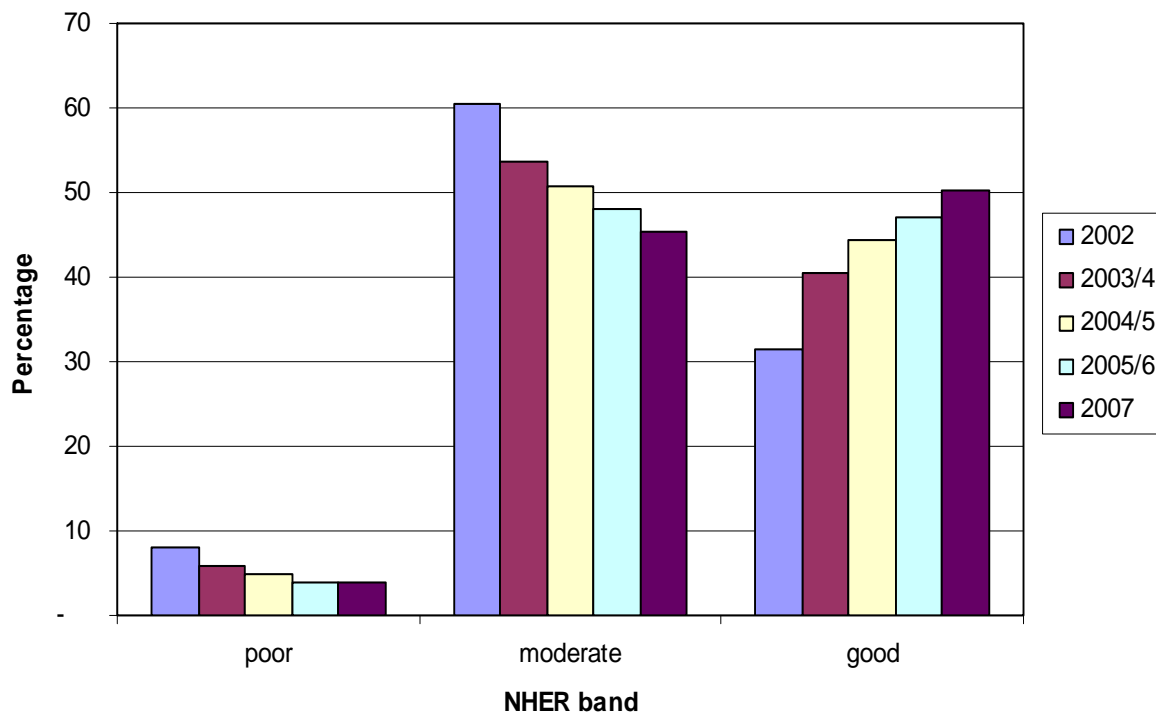


Table 10: Banded NHER by Tenure - 2002-2005/6 (Row %)

| | NHER Band | | | | <i>Unweighted sample size</i> |
|-----------------------|-----------|----------|------|-----|-------------------------------|
| | Poor | Moderate | Good | All | |
| All tenures | | | | | |
| 2002 | 8 | 60 | 31 | 100 | 14,965 |
| 2003/4 | 6 | 54 | 40 | 100 | 3,088 |
| 2004/5 | 5 | 51 | 44 | 100 | 3,085 |
| 2005/6 | 4 | 48 | 47 | 100 | 3,146 |
| 2007 | 4 | 46 | 50 | 100 | 3,016 |
| Private sector | | | | | |
| 2002 | 9 | 65 | 27 | 100 | 10,107 |
| 2003/4 | 8 | 58 | 35 | 100 | 2,220 |
| 2004/5 | 6 | 57 | 38 | 100 | 2,305 |
| 2005/6 | 5 | 55 | 40 | 100 | 2,340 |
| 2007 | 5 | 51 | 45 | 100 | 2,190 |
| Social sector | | | | | |
| 2002 | 6 | 51 | 43 | 100 | 4,858 |
| 2003/4 | 2 | 43 | 56 | 100 | 868 |
| 2004/5 | 2 | 35 | 63 | 100 | 780 |
| 2005/6 | 1 | 32 | 67 | 100 | 806 |
| 2007 | 2 | 32 | 66 | 100 | 826 |

29. Table 10 shows that improvements in energy efficiency of social rented dwellings have been greater than those for the stock as a whole. In 2007, 66% of social rented dwellings had a 'good' NHER rating, compared to 43% in 2002. Over the same period, the proportion of private sector dwellings rated 'good' increased from 27% to 45%.
30. Table 11 shows the SAP 2001 rating of occupied housing stock for 2007. The pattern is very similar to that for NHER, with the largest proportion of dwellings rated between 61 and 70, with just below 80% of dwellings rated between 41 and 80. The median SAP rating is 64.
31. Table 12 shows the SAP rating of occupied housing stock for 2007 calculated using SAP 2005¹². Again, the largest proportion of dwellings is rated between 61 and 70. However, using SAP 2001, around a third of dwellings have an energy rating over 71 while, using SAP 2005, only 10% of dwellings have a rating over 71, with no dwellings with a score of 91-100.

¹² For more information on SAP 2001 and SAP 2005 see paragraphs 109-113

Table 11: Dwellings by banded SAP 2001, 2007 (000s and %)

| Banded SAP 2001 | 000s | % | <i>Unweighted sample size</i> |
|------------------------|--------------|-------------------|-------------------------------|
| 1-10 | 12 | 1 | 18 |
| 11-20 | 27 | 1 | 37 |
| 21-30 | 62 | 3 | 104 |
| 31-40 | 139 | 6 | 204 |
| 41-50 | 297 | 13 | 438 |
| 51-60 | 433 | 19 | 575 |
| 61-70 | 597 | 26 | 749 |
| 71-80 | 495 | 21 | 618 |
| 81-90 | 170 | 7 | 202 |
| 91-100 | 59 | 3 | 62 |
| 100+ | 9 | 0 | 9 |
| Sub-Total | 2,300 | 99 | 3,016 |
| Unobtainable | 13 | 1 | 17 |
| All Dwellings | 2,314 | 100 | 3,033 |
| | | | |
| Median | 64 | | |
| | | +/- 95% CI | |
| Mean | 61.8 | 61.1 | 62.4 |

32. Table 12 shows the SAP rating of occupied housing stock for 2007 calculated using SAP 2005¹³. Again, the largest proportion of dwellings is rated between 61 and 70. However, using SAP 2001, around a third of dwellings have an energy rating over 71 while, using SAP 2005, only 10% of dwellings have a rating over 71, with no dwellings with a score of 91-100.
33. Flats tend to have higher energy efficiency ratings than houses. The majority of tenements and other flats have 'good' energy ratings, whereas around a third of detached and semi-detached houses are rated 'good' (Table 13). The mean NHER for detached houses is 5.2, compared to 7.0 for tenement flats. The median NHER scores are 5 and 7 respectively (Table 15).
34. Houses have lower energy efficiency because they have more outside walls resulting in increased heat loss. Hence terraced houses generally have higher energy efficiency ratings than detached houses.

¹³ For more information on SAP 2001 and SAP 2005 see paragraphs 109 to 113

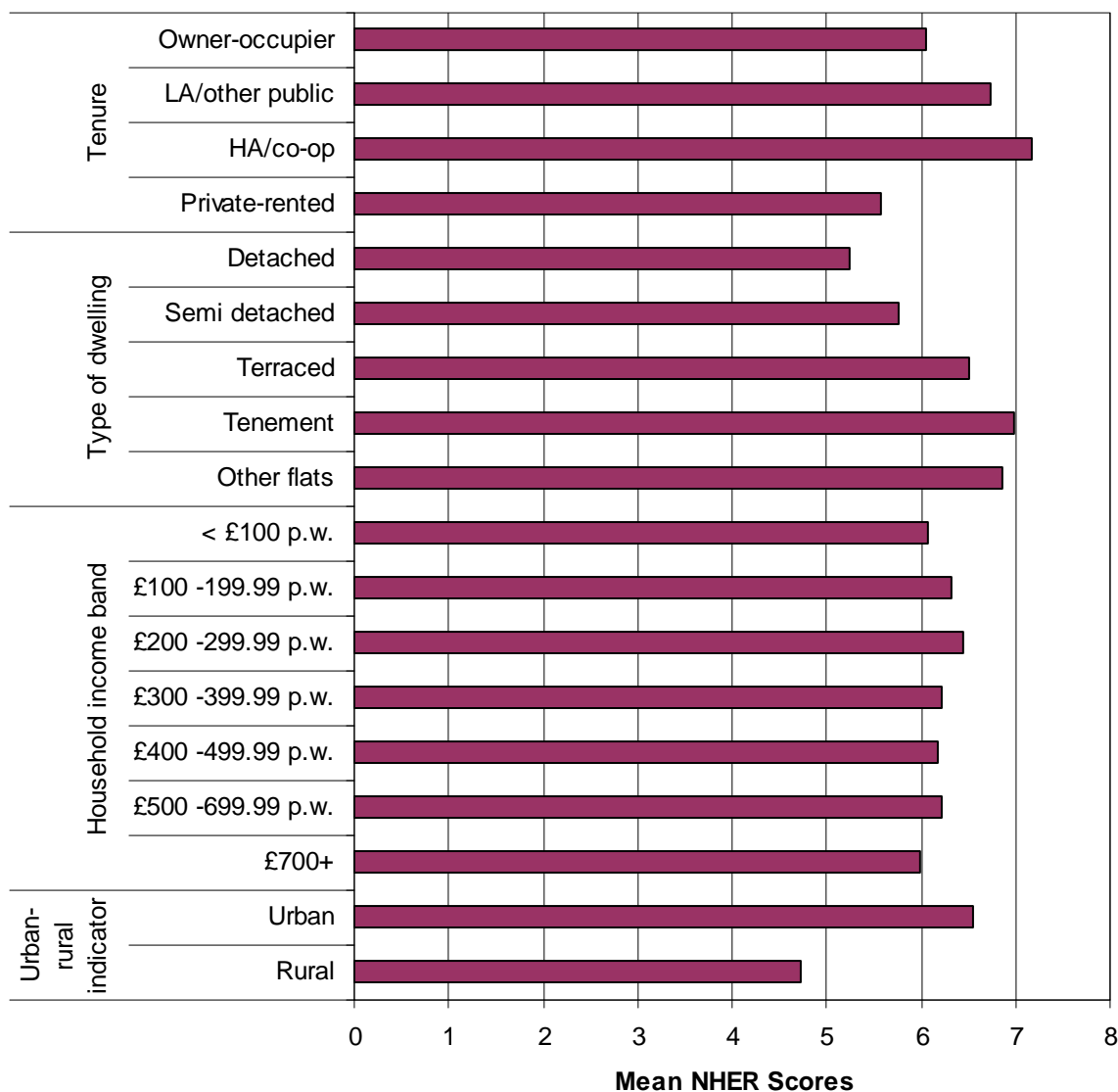
Table 12: Dwellings by banded SAP 2005, 2007 (000s and %)

| Banded SAP 2005 | 000s | % | <i>Unweighted sample size</i> |
|------------------------|--------------|-------------------|-------------------------------|
| 1-10 | 14 | 1 | 19 |
| 11-20 | 18 | 1 | 26 |
| 21-30 | 51 | 2 | 85 |
| 31-40 | 146 | 6 | 222 |
| 41-50 | 364 | 16 | 519 |
| 51-60 | 625 | 27 | 826 |
| 61-70 | 851 | 37 | 1,053 |
| 71-80 | 223 | 10 | 258 |
| 81-90 | 8 | 0 | 8 |
| 91-100 | | | |
| Sub-Total | 2,300 | 99 | 3,016 |
| Unobtainable | 13 | 1 | 17 |
| All Dwellings | 2,314 | 100 | 3,033 |
| | | | |
| Median | 60 | | |
| | | +/- 95% CI | |
| Mean | 57.3 | 56.8 | 57.8 |

35. Newer dwellings are more likely to have a 'good' energy efficiency rating than older dwellings; 76% of dwellings built after 1982 have a 'good' energy efficiency rating compared to fewer than 25% of the pre-1919 occupied stock. Less than 1% of dwellings built after 1982 have 'poor' NHER ratings compared to more than 1 in 10 of those built before 1919.
36. Only about 3% of the housing stock has no central heating. A further 4% have only partial central heating. Of those 3% without central heating, 47% have 'poor' NHER ratings, compared to just 2% of those with full central heating. Over 50% of those with full central heating having 'good' ratings. More than half of those with partial central heating have 'moderate' NHER scores with just over a third rated 'good' (Table 13).
37. Those who use gas as their primary heating source are around twice as likely as those who use electricity and around 20 times more likely than those who use oil to have a 'good' NHER rating. Those who use 'other fuel types'¹⁴ such as solid fuels are over 20 times more likely than those who use gas to have a 'poor' NHER score.

¹⁴ Other fuel types include solid fuels such as coal, smokeless fuels, wood and peat, and community heating. Community heating systems have been included in this category as their sample size in the SHCS is too small to allow them to be a separate category but they would generally be expected to have better energy efficiency ratings than solid fuel systems.

Figure 5: Mean NHER by tenure, type of dwelling, household income and urban/rural indicator



38. Figure 5 and Table 14 show that dwellings in the social rented sector (local authorities, other public sector organisations, housing associations and housing co-operatives) tend to have higher energy efficiency ratings than privately owned or rented dwellings. 17% of dwellings in the private rented sector are rated 'poor', compared to an average of 4% across all sectors (Table 14).
39. Single parent households are more likely than other household types to have a 'good' NHER rating.

40. There does not appear to be a straightforward relationship between income and energy efficiency rating. With Council Tax, generally the lower the band, the higher the % of dwellings which have 'good' NHER ratings. 59% of dwellings with Council Tax band A compared with 32% of those with band G are rated 'good'. Council Tax band H does not follow this trend but the sample size is very small.
41. 56% of dwellings in urban areas have a 'good' NHER rating compared with 21% of those in rural areas (Table 13).
42. As noted above, newer dwellings are more likely to have a 'good' energy efficiency rating than older dwellings; 76% of dwellings built after 1982 have a 'good' energy efficiency rating compared to fewer than 25% of the pre-1919 occupied stock. Less than 1% of dwellings built after 1982 have 'poor' NHER ratings compared to more than 1 in 10 of those built before 1919 (Table 13).
43. Only about 3% of the housing stock has no central heating. A further 4% have only partial central heating. Of those 3% without central heating, 47% have 'poor' NHER ratings, compared to just 2% of those with full central heating. Over 50% of those with full central heating having 'good' ratings. More than half of those with partial central heating have 'moderate' NHER scores with just over a third rated 'good' (Table 13).
44. Urban dwellings are more than twice as likely to have a 'good' NHER rating and are also around six times less likely to be rated 'poor' than those in rural areas. The median NHER rating of rural dwellings is 5, compared to 7 for urban areas and a national median of 7.
45. Dwellings off the gas grid are almost 5 times less likely to have a 'good' NHER rating and around 8 times more likely to have a 'poor' NHER rating than those who are on the gas grid. Rural dwellings are more likely to be off the gas grid, and use oil or solid fuels in their central heating than those in urban areas.

Table 13: NHER band by dwelling characteristics (Row %)

| | NHER Band | | | Total | <i>Unweighted sample size</i> |
|-------------------------------|-----------------|--------------------|--------------------|----------------------------|-------------------------------|
| | Poor | Moderate | Good | | |
| | % | % | % | % | |
| Type of Dwelling | | | | | |
| Detached | 8 | 63 | 30 | 100 | 727 |
| Semi detached | 4 | 59 | 37 | 100 | 662 |
| Terraced | 2 | 41 | 57 | 100 | 690 |
| Tenement | 3 | 30 | 67 | 100 | 544 |
| Other flats | 3 | 32 | 65 | 100 | 393 |
| Age of Dwelling | | | | | |
| Pre-1919 | 12 | 58 | 30 | 100 | 567 |
| 1919-1944 | 5 | 45 | 50 | 100 | 397 |
| 1945-1964 | 1 | 43 | 55 | 100 | 761 |
| 1965-1982 | 2 | 57 | 41 | 100 | 695 |
| Post-1982 | 0 | 24 | 76 | 100 | 596 |
| Central Heating Extent | | | | | |
| Full | 2 | 45 | 53 | 100 | 2,819 |
| Partial | 11 | 55 | 34 | 100 | 123 |
| No central heating | 47 | 53 | 0 | 100 | 74 |
| Primary Heating Fuel | | | | | |
| Gas | 1 | 40 | 59 | 100 | 2,191 |
| Oil | 8 | 89 | 3 | 100 | 231 |
| Electric | 15 | 58 | 28 | 100 | 507 |
| Other fuel type | 22 | 57 | 21 | 100 | 87 |
| Urban/rural | | | | | |
| Urban | 2 | 42 | 56 | 100 | 2,365 |
| Rural | 13 | 67 | 21 | 100 | 651 |
| Gas Grid | | | | | |
| On Gas Grid | 2 | 42 | 56 | 100 | 2,467 |
| Off Gas Grid | 17 | 71 | 12 | 100 | 549 |
| All Scotland | | | | | |
| <i>Unweighted sample size</i> | 4 157 | 46 1,439 | 50 1,420 | 100 3,016 | 3,016 |

Table 14: NHER band by household characteristics (Row %)

| | NHER Band | | | Total | <i>Unweighted sample size</i> |
|-------------------------------|-----------|-----------|-----------|------------|-------------------------------|
| | Poor | Moderate | Good | | |
| | % | % | % | % | |
| <i>Row percentages</i> | | | | | |
| Tenure | | | | | |
| Owner-occupier | 3 | 52 | 45 | 100 | 1,956 |
| LA/other public | 2 | 35 | 62 | 100 | 520 |
| HA/co-op | 1 | 28 | 71 | 100 | 306 |
| Private-rented | 17 | 39 | 45 | 100 | 234 |
| Private Sector | 5 | 51 | 45 | 100 | 2,190 |
| Social Sector | 2 | 32 | 66 | 100 | 826 |
| Household Type | | | | | |
| Single adult | 6 | 41 | 52 | 100 | 438 |
| Small adult | 4 | 47 | 49 | 100 | 542 |
| Single parent | 2 | 31 | 66 | 100 | 153 |
| Small family | 1 | 44 | 55 | 100 | 416 |
| Large family | 2 | 44 | 54 | 100 | 219 |
| Large adult | 4 | 50 | 46 | 100 | 291 |
| Older smaller | 4 | 53 | 43 | 100 | 494 |
| Single pensioner | 5 | 45 | 50 | 100 | 463 |
| Weekly Income Band | | | | | |
| < £100 p.w. | 5 | 55 | 40 | 100 | 127 |
| £100 -199.99 p.w. | 5 | 41 | 54 | 100 | 590 |
| £200 -299.99 p.w. | 4 | 41 | 55 | 100 | 610 |
| £300 -399.99 p.w. | 4 | 45 | 51 | 100 | 390 |
| £400 -499.99 p.w. | 2 | 47 | 50 | 100 | 344 |
| £500 -699.99 p.w. | 3 | 46 | 51 | 100 | 464 |
| £700+ | 3 | 56 | 41 | 100 | 472 |
| Council Tax Band | | | | | |
| A | 4 | 37 | 59 | 100 | 664 |
| B | 5 | 37 | 58 | 100 | 752 |
| C | 3 | 45 | 52 | 100 | 460 |
| D | 3 | 50 | 47 | 100 | 386 |
| E | 4 | 58 | 38 | 100 | 359 |
| F | 1 | 62 | 37 | 100 | 207 |
| G | 3 | 65 | 32 | 100 | 129 |
| H | | 43 | 57 | 100 | 11 |
| Unobtainable | 25 | 61 | 14 | 100 | 48 |
| All Scotland | | | | | |
| | 4 | 46 | 50 | 100 | 3,016 |
| <i>Unweighted sample size</i> | 157 | 1,439 | 1,420 | 3,016 | |

Table 15: Mean and median NHER score by dwelling characteristics

| | NHER | | | | <i>Unweighted sample size</i> |
|-------------------------------|------------|-------------------------|-------------|----------|-------------------------------|
| | Mean | 95% Confidence Interval | | Median | |
| | | Lower bound | Upper bound | | |
| Type of Dwelling | | | | | |
| Detached | 5.2 | 5.1 | 5.4 | 5 | 727 |
| Semi detached | 5.8 | 5.6 | 5.9 | 6 | 662 |
| Terraced | 6.5 | 6.4 | 6.7 | 7 | 690 |
| Tenement | 7.0 | 6.8 | 7.2 | 7 | 544 |
| Other flats | 6.9 | 6.6 | 7.1 | 7 | 393 |
| Age of Dwelling | | | | | |
| pre-1919 | 5.1 | 4.9 | 5.3 | 5 | 567 |
| 1919-1944 | 6.2 | 6.0 | 6.4 | 6 | 397 |
| 1945-1964 | 6.6 | 6.4 | 6.7 | 7 | 761 |
| 1965-1982 | 6.0 | 5.8 | 6.1 | 6 | 695 |
| post-1982 | 7.3 | 7.2 | 7.5 | 7 | 596 |
| Central Heating Extent | | | | | |
| Full | 6.4 | 6.3 | 6.5 | 7 | 2,819 |
| Partial | 5.3 | 4.9 | 5.8 | 6 | 123 |
| No central heating | 2.7 | 2.4 | 3.1 | 3 | 74 |
| Primary Heating Fuel | | | | | |
| Gas | 6.7 | 6.6 | 6.8 | 7 | 2,191 |
| Oil | 4.0 | 3.9 | 4.2 | 4 | 231 |
| Electric | 5.0 | 4.8 | 5.2 | 5 | 507 |
| Other fuel type | 4.4 | 3.9 | 4.8 | 4 | 87 |
| Urban/rural | | | | | |
| urban | 6.5 | 6.5 | 6.6 | 7 | 2,365 |
| rural | 4.7 | 4.5 | 4.9 | 5 | 651 |
| Gas Grid | | | | | |
| On Gas Grid | 6.5 | 6.5 | 6.6 | 7 | 2,467 |
| Off Gas Grid | 4.1 | 4.0 | 4.3 | 4 | 549 |
| Scotland | 6.2 | 6.2 | 6.3 | 7 | 3,016 |

Table 16: Mean and median NHER score by household characteristics

| | NHER | | | | <i>Unweighted sample size</i> |
|---------------------------|------|-------------------------|-------------|--------|-------------------------------|
| | Mean | 95% Confidence Interval | | Median | |
| | | Lower bound | Upper bound | | |
| Tenure | | | | | |
| Owner-occupier | 6.0 | 6.0 | 6.1 | 6 | 1,956 |
| LA/other public | 6.7 | 6.6 | 6.9 | 7 | 520 |
| HA/co-op | 7.2 | 6.9 | 7.4 | 7 | 306 |
| Private-rented | 5.6 | 5.2 | 6.0 | 6 | 234 |
| Private Sector | 6.0 | 5.9 | 6.1 | 6 | 2,190 |
| Social Sector | 6.9 | 6.8 | 7.1 | 7 | 826 |
| Household Type | | | | | |
| Single adult | 6.3 | 6.1 | 6.6 | 7 | 438 |
| Small adult | 6.2 | 6.0 | 6.3 | 6 | 542 |
| Single parent | 6.9 | 6.5 | 7.2 | 7 | 153 |
| Small family | 6.3 | 6.2 | 6.5 | 7 | 416 |
| Large family | 6.4 | 6.1 | 6.7 | 7 | 219 |
| Large adult | 6.1 | 5.9 | 6.4 | 6 | 291 |
| Older smaller | 5.9 | 5.7 | 6.1 | 6 | 494 |
| Single pensioner | 6.3 | 6.1 | 6.5 | 6 | 463 |
| Weekly Income Band | | | | | |
| < £100 p.w. | 6.1 | 5.7 | 6.5 | 6 | 127 |
| £100 -199.99 p.w. | 6.3 | 6.1 | 6.5 | 7 | 590 |
| £200 -299.99 p.w. | 6.4 | 6.3 | 6.6 | 7 | 610 |
| £300 -399.99 p.w. | 6.2 | 6.0 | 6.5 | 7 | 390 |
| £400 -499.99 p.w. | 6.2 | 6.0 | 6.4 | 7 | 344 |
| £500 -699.99 p.w. | 6.2 | 6.0 | 6.4 | 7 | 464 |
| £700+ | 6.0 | 5.8 | 6.2 | 6 | 472 |
| Council Tax Band | | | | | |
| A | 6.6 | 6.4 | 6.8 | 7 | 664 |
| B | 6.5 | 6.3 | 6.6 | 7 | 752 |
| C | 6.3 | 6.1 | 6.5 | 7 | 460 |
| D | 6.1 | 5.9 | 6.3 | 6 | 386 |
| E | 5.9 | 5.6 | 6.1 | 6 | 359 |
| F | 5.9 | 5.6 | 6.1 | 6 | 207 |
| G | 5.6 | 5.3 | 5.9 | 6 | 129 |
| H | 6.6 | 5.8 | 7.4 | 7 | 11 |
| Unobtainable | 3.9 | 3.3 | 4.6 | 4 | 48 |
| All Scotland | | | | | |
| | 6.2 | 6.2 | 6.3 | 7 | 3,016 |

Table 17: Mean and median SAP 2001 score by dwelling and household characteristics

| | SAP 2001 | | | | <i>Unweighted sample size</i> |
|-------------------------|-------------|-------------------------|-------------|-----------|-------------------------------|
| | Mean | 95% Confidence Interval | | Median | |
| | | Lower bound | Upper bound | | |
| Type of Dwelling | | | | | |
| Detached | 52.7 | 51.4 | 54.0 | 55 | 727 |
| Semi detached | 57.8 | 56.6 | 59.0 | 58 | 662 |
| Terraced | 64.6 | 63.4 | 65.8 | 67 | 690 |
| Tenement | 68.5 | 66.8 | 70.1 | 70 | 544 |
| Other flats | 65.9 | 64.0 | 67.8 | 68 | 393 |
| Age of Dwelling | | | | | |
| Pre-1919 | 50.1 | 48.4 | 51.7 | 50 | 567 |
| 1919-1944 | 60.4 | 58.5 | 62.3 | 63 | 397 |
| 1945-1964 | 64.5 | 63.3 | 65.7 | 66 | 761 |
| 1965-1982 | 60.8 | 59.6 | 62.0 | 61 | 695 |
| Post-1982 | 71.5 | 70.3 | 72.7 | 71 | 596 |
| Urban/rural | | | | | |
| Urban | 63.9 | 63.2 | 64.6 | 65 | 2,365 |
| Rural | 50.8 | 49.3 | 52.4 | 51 | 651 |
| Gas Grid | | | | | |
| On Gas Grid | 63.7 | 63.1 | 64.4 | 65 | 2,467 |
| Off Gas Grid | 47.1 | 45.5 | 48.6 | 47 | 549 |
| Tenure | | | | | |
| Owner-occupier | 59.5 | 58.7 | 60.3 | 61 | 1,956 |
| LA/other public | 67.2 | 65.8 | 68.6 | 69 | 520 |
| HA/co-op | 70.8 | 68.8 | 72.8 | 72 | 306 |
| Private-rented | 56.3 | 53.1 | 59.6 | 61 | 234 |
| Private Sector | 59.1 | 58.3 | 59.9 | 61 | 2,190 |
| Social Sector | 68.6 | 67.4 | 69.8 | 70 | 826 |
| All Scotland | 61.8 | 61.1 | 62.4 | 64 | 3,016 |

Table 18: Mean and median SAP 2005 score by dwelling and household characteristics

| | SAP 2005 | | | | <i>Unweighted sample size</i> |
|-------------------------|-------------|-------------------------|-------------|-----------|-------------------------------|
| | Mean | 95% Confidence Interval | | Median | |
| | | Lower bound | Upper bound | | |
| Type of Dwelling | | | | | |
| Detached | 50.1 | 49.0 | 51.2 | 53 | 727 |
| Semi detached | 54.9 | 53.9 | 55.8 | 56 | 662 |
| Terraced | 59.9 | 59.0 | 60.8 | 62 | 690 |
| Tenement | 61.9 | 60.8 | 63.1 | 64 | 544 |
| Other flats | 60.2 | 58.8 | 61.6 | 63 | 393 |
| Age of Dwelling | | | | | |
| Pre-1919 | 48.0 | 46.6 | 49.4 | 50 | 567 |
| 1919-1944 | 56.4 | 54.9 | 58.0 | 60 | 397 |
| 1945-1964 | 59.7 | 58.8 | 60.5 | 62 | 761 |
| 1965-1982 | 56.9 | 56.0 | 57.8 | 58 | 695 |
| Post-1982 | 64.2 | 63.4 | 65.0 | 64 | 596 |
| Urban/rural | | | | | |
| Urban | 59.2 | 58.6 | 59.7 | 61 | 2,365 |
| Rural | 47.9 | 46.6 | 49.2 | 49 | 651 |
| Gas Grid | | | | | |
| On Gas Grid | 59.0 | 58.5 | 59.5 | 61 | 2,467 |
| Off Gas Grid | 44.4 | 43.1 | 45.7 | 46 | 549 |
| Tenure | | | | | |
| Owner-occupier | 55.8 | 55.1 | 56.4 | 58 | 1,956 |
| LA/other public | 61.6 | 60.6 | 62.6 | 64 | 520 |
| HA/co-op | 63.6 | 62.3 | 65.0 | 66 | 306 |
| Private-rented | 52.3 | 49.7 | 54.9 | 57 | 234 |
| Private Sector | 55.4 | 54.7 | 56.0 | 58 | 2,190 |
| Social Sector | 62.4 | 61.6 | 63.2 | 64 | 826 |
| All Scotland | 57.3 | 56.8 | 57.8 | 60 | 3,016 |

3 Fuel Poverty

46. The term 'Fuel Poverty' refers to the situation where a household cannot afford to heat their home to an adequate level. The Scottish Government uses the following definition of fuel poverty as set out in the Scottish Fuel Poverty Statement (FPS)¹⁵ published in 2002:

"A household is in fuel poverty if it would be required to spend more than 10% of its income (including Housing Benefit or Income Support for Mortgage Interest) on all household fuel use."

Furthermore 'Extreme Fuel Poverty' can be defined as a household having to spend more than 20% of its income on fuel.

47. The concept of fuel poverty is based on a theoretical calculation of how much it would cost to heat a dwelling according to a specified regime (See foot notes 15, 16 and 17). Also 'income' is net of council taxes (See paragraph 117 for additional notes on fuel poverty). For a more detailed description of the definition of fuel poverty and analysis of previous years' SHCS fuel poverty statistics see the Fuel Poverty Statement, the SHCS 2002 Fuel Poverty in Scotland Report¹⁶ and the SHCS Fuel Poverty Report 2003/4¹⁷. A technical note on the calculation of Fuel Poverty figures using SHCS data can be found on the SHCS website¹⁸.
48. Figure 6 and Table 19 show that from 1996 to 2002 the number of fuel poor households in Scotland fell substantially from around 36% to 13%¹⁹. In 2003/4, 15.4% of households (350,000) were assessed as fuel poor, and, in 2004/5, 18.2% of households (419,000) were estimated to be in fuel poverty. In 2005/6, 23.5% households (543,000) were found to be fuel poor and this figure increased to 25.3% of households (586,000 in 2007). This is not a statistically significant increase over the 2005/6 estimate.
49. In each of the five survey years there were a number of cases where it was not possible to determine fuel poverty status. These have been reapportioned pro-rata between the two categories (or three categories in the case of extreme fuel poverty) as was discussed in the 2004/5 SHCS Key Findings Report²⁰. 37 'missing' cases were reapportioned in 2007.

¹⁵ <http://www.scotland.gov.uk/Publications/2002/08/15258/9951>

¹⁶ Available to download at <http://www.scotland.gov.uk/Topics/Statistics/SHCS/FuelPoverty>

¹⁷ Web only publication available at: <http://www.scotland.gov.uk/Publications/2006/11/23092121/0>

¹⁸ Technical note available at: <http://www.scotland.gov.uk/Topics/Statistics/SHCS/technicalnotefuelpoverty>

¹⁹ This comparison uses two different definitions of fuel poverty. A comparison using the same definition results in a fall from 36% to 9%. See the 2002 fuel poverty report for further details:

<http://www.scotland.gov.uk/Topics/Statistics/SHCS/FuelPoverty>

²⁰ <http://www.scotland.gov.uk/Publications/2007/03/26155927/0> paragraph 32.

50. A small methodological change was introduced for 2007 processing. Previously, households with negative annual household income after council tax deduction were removed from the fuel poverty calculations but reapportioned as described in paragraph 49 above. However, these households should have been included in the fuel poor since they had negative income. However, it is also likely that their annual income was incorrectly calculated. Therefore, for example, if annual household income was collected as £200 per year, we have made the assumption that that was in fact weekly income and multiplied it by 52. For household incomes above £700 but still below the council tax, we have assumed that the income was in fact monthly and multiplied it by 12. This has the paradoxical effects of raising the average annual household income but increasing the number of low income households included in the fuel poverty calculations. This change increased fuel poverty by 0.2% in 2007.
51. Further detailed analysis of households with very low annual incomes is required on a case by case basis to ensure that their incomes have not been underestimated. While the investigation work so far has increased fuel poverty (by 0.2%), it may be that the annual household incomes of some households whose annual household income is just above the council tax level will more likely be monthly incomes and so need to be multiplied by 12. This may result in a concomitant reduction in fuel poverty. Again these households will have to be investigated on a case-by-case basis and will take some time.

Figure 6: Households in Fuel Poverty 1996-2007 (% and CIs)

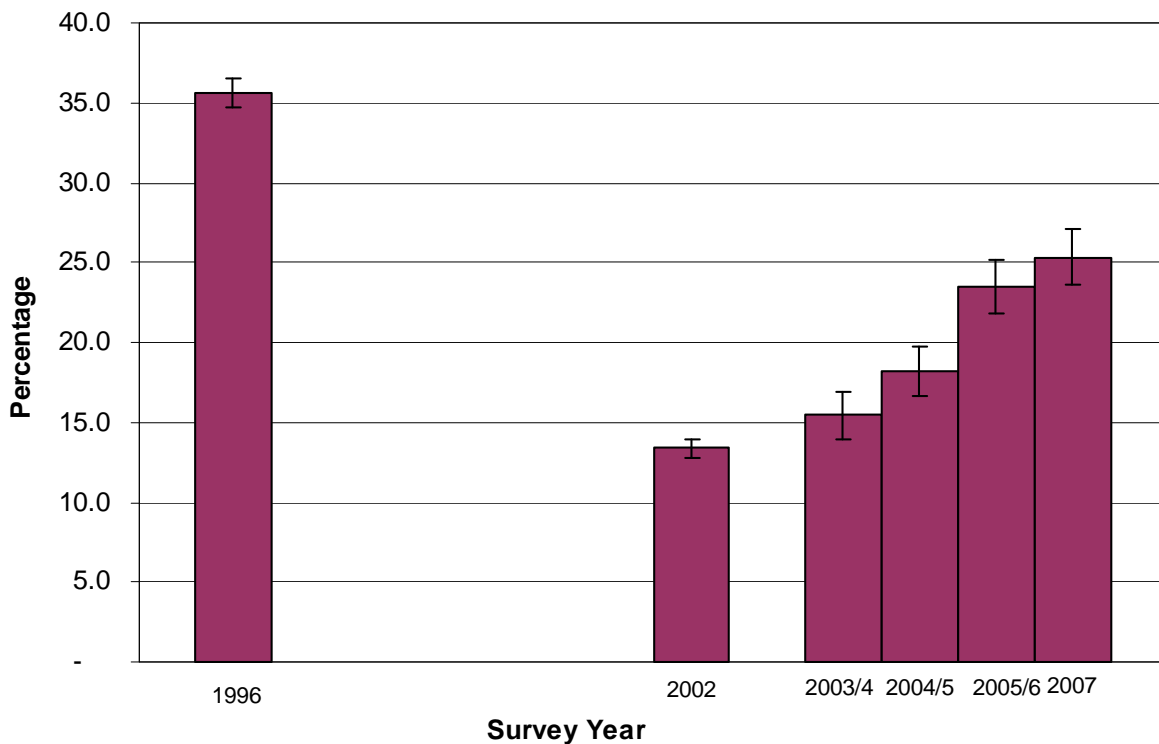


Table 19: Fuel Poverty and Extreme Fuel Poverty 1996-2007 (000s, % and CIs)

| | 000's | % | % Confidence Intervals | |
|-----------------------------|-------|------|------------------------|----------|
| | | | Lower CI | Upper CI |
| Fuel Poverty | | | | |
| 1996 | 756 | 35.6 | 34.7 | 36.5 |
| 2002 | 293 | 13.4 | 12.7 | 14.0 |
| 2003/4 | 350 | 15.4 | 13.9 | 16.9 |
| 2004/5 | 419 | 18.2 | 16.6 | 19.8 |
| 2005/6 | 543 | 23.5 | 21.8 | 25.2 |
| 2007 | 586 | 25.3 | 23.6 | 27.1 |
| Extreme Fuel Poverty | | | | |
| 1996 | 182 | 8.6 | 8.1 | 9.1 |
| 2002 | 71 | 3.2 | 2.9 | 3.5 |
| 2003/4 | 112 | 4.9 | 4.0 | 5.8 |
| 2004/5 | 119 | 5.2 | 4.3 | 6.1 |
| 2005/6 | 173 | 7.5 | 6.4 | 8.5 |
| 2007 | 172 | 7.4 | 6.3 | 8.5 |

52. Following a fall between 1996 and 2002, the number and proportion of households in fuel poverty has subsequently increased. Changes in fuel prices were an important factor in both the reduction in numbers in fuel poverty between 1996 and 2002 and in the subsequent increase. At the time of the 2002 survey it was estimated that of the 26% fall in fuel poverty between 1996 and 2002²¹, 9 percentage points was due to the fall in fuel prices over the period, 4 to improved energy efficiency and 13 to real increases in incomes.
53. Because of the small sample sizes in the 2004/5, 2005/6 and 2007 surveys, the precision of any estimates of the effect of improved energy efficiency measures will be poor as will estimates of the offset of those improvements against the impact of fuel price increases.
54. The survey found that there was about a 10% increase in household incomes between May 2006 and July 2007. Over the same period, the average cost of all fuels rose by about 4% and standing charges by about 17%. In comparison, the rises over the previous year - between May 2005 and May 2006 - were 16% for standing charges and 21.4 % for fuel costs. The exact rise in fuel costs depends on the proportion of each of the fuels and the relevant charges for each supplier - which can change between suppliers for a household over the year. There has also been an improvement in NHER over the year. This highlights the interaction

²¹ Based on the 1996 definition of fuel poverty.

between fuel price increases, income increases and improvements in energy efficiency in the calculation of fuel poverty.

55. 7% of households (172,000) were also estimated to be in extreme fuel poverty, i.e. having to spend in excess of 20% of their income on fuel. Just under a third of those in fuel poverty are in extreme fuel poverty (Table 19).
56. People living in tenements are least likely to and those living in detached houses most likely to experience fuel poverty. A third of households in detached houses are fuel poor compared with 19% of tenement dwelling households (Table 22).
57. Those with 'poor' NHER scores are more likely than those with higher NHER scores to be fuel poor. Older smaller and single pensioner households are more likely to experience fuel poverty than any other household type. 91% of those with a household income of less than £100 per week are fuel poor. The rate of fuel poverty is higher in rural areas than in urban areas (Table 22 and Figure 7).
58. Those living in private sector dwellings are twice as likely as those in social sector dwellings to experience extreme fuel poverty (Table 23). 9% of those in private sector dwellings are in extreme fuel poverty compared to only 4% of those in social-sector dwellings.
59. Households living in older dwellings are more likely to experience fuel poverty with around 3 in 10 households living in dwellings built before 1919 being fuel poor compared to around 1 in 10 of those living in dwellings built after 1982. This is at least in part related to the greater energy efficiency of dwellings built after 1982 as discussed in paragraph 35.
60. Households with partial central heating or no central heating are almost twice as likely to suffer fuel poverty as those with full central heating. Around a fifth of gas users are fuel poor compared to around a third of electricity users and around 45% of users of oil and 'other fuels'. Furthermore those who use oil or 'other fuel type' (not gas or electricity) are around three times more likely to experience extreme fuel poverty than gas users (Table 22).
61. Households in dwellings with lower energy efficiency are more likely to be fuel poor. Households living in dwellings rated 'moderate' or 'poor' are respectively around 2 and 4 times more likely to experience fuel poverty than those with a 'good' rating. Furthermore those with a 'poor' NHER score are more than 10 times as likely to experience extreme fuel poverty as those with a 'good' rating, with just over a quarter of such households in extreme fuel poverty (Table 22 and Figure 7).

Figure 7: Households in fuel poverty by tenure, NHER band, household type, household income and urban/rural (%)

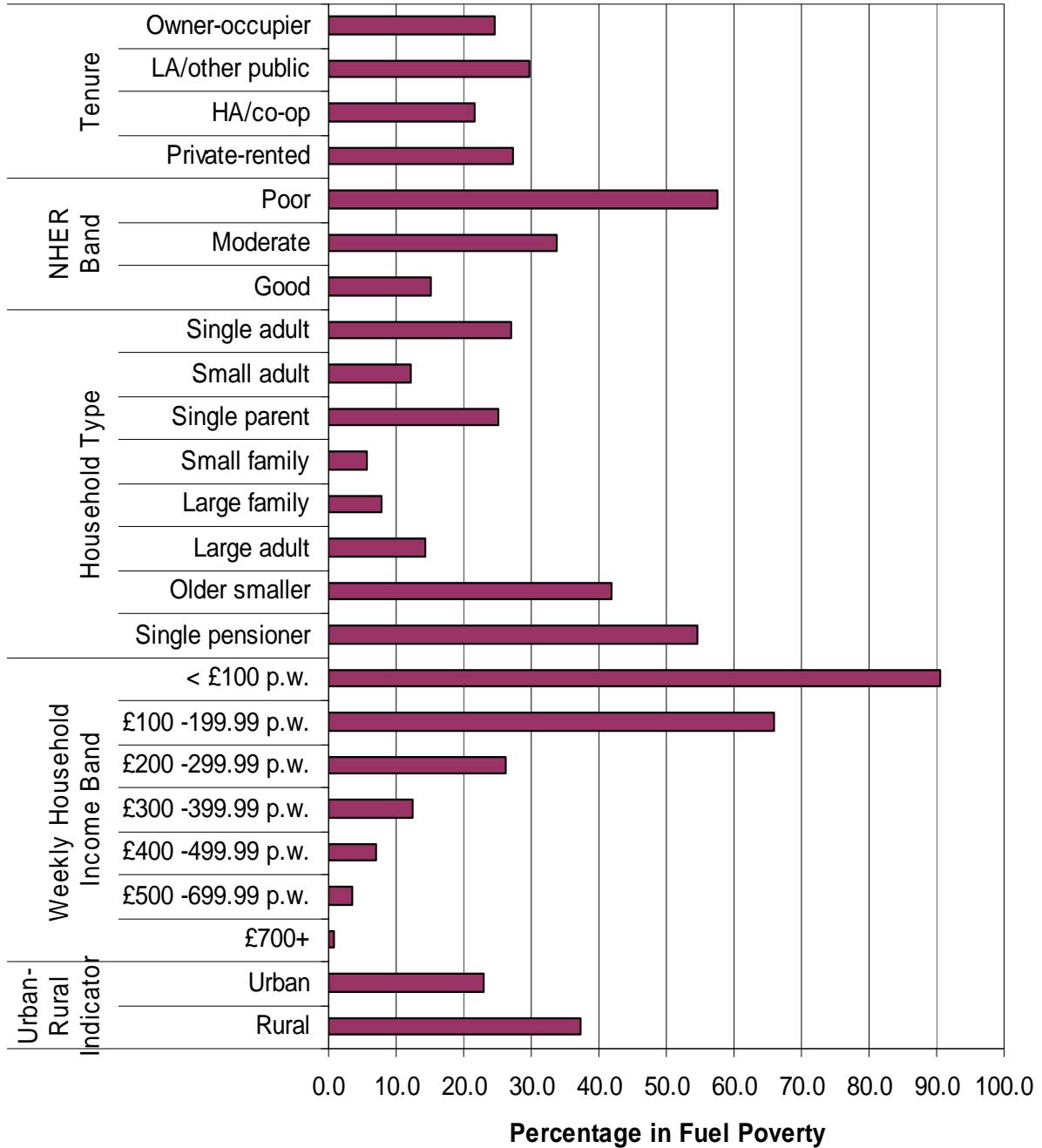


Table 20: Fuel Poverty by dwelling characteristics (000s)

| | Not Fuel Poor | Fuel Poor²² | Extreme Fuel Poor | Total | <i>Unweighted sample size</i> |
|-------------------------------|----------------------|-------------------------------|--------------------------|--------------|-------------------------------|
| Type of Dwelling | | | | | |
| Detached | 327 | 153 | 66 | 480 | 725 |
| Semi detached | 356 | 127 | 39 | 483 | 659 |
| Terraced | 384 | 131 | 35 | 515 | 687 |
| Tenement | 409 | 98 | 18 | 508 | 535 |
| Other flats | 253 | 76 | 14 | 328 | 390 |
| Age of Dwelling | | | | | |
| Pre-1919 | 303 | 135 | 59 | 438 | 562 |
| 1919-1944 | 208 | 90 | 24 | 299 | 394 |
| 1945-1964 | 398 | 157 | 42 | 555 | 757 |
| 1965-1982 | 409 | 143 | 33 | 552 | 692 |
| Post-1982 | 409 | 60 | 15 | 470 | 591 |
| Central Heating Extent | | | | | |
| Full | 1,649 | 522 | 150 | 2,171 | 2,801 |
| Partial | 45 | 36 | 10 | 81 | 122 |
| No central heating | 34 | 27 | 12 | 61 | 73 |
| Primary Heating Fuel | | | | | |
| Gas | 1,392 | 398 | 102 | 1,790 | 2,178 |
| Oil | 76 | 47 | 22 | 122 | 229 |
| Electric | 230 | 117 | 39 | 348 | 502 |
| Other fuel type | 29 | 24 | 9 | 53 | 87 |
| NHER Band | | | | | |
| Poor | 38 | 51 | 24 | 89 | 156 |
| Moderate | 697 | 354 | 120 | 1,050 | 1,434 |
| Good | 985 | 177 | 26 | 1,161 | 1,406 |
| Urban/rural | | | | | |
| urban | 1,488 | 442 | 111 | 1,930 | 2,347 |
| rural | 240 | 143 | 61 | 384 | 649 |
| Mains Gas Grid | | | | | |
| On Grid | 1,556 | 479 | 125 | 2,036 | 2,449 |
| Not on Grid | 172 | 107 | 48 | 278 | 547 |
| All Scotland | | | | | |
| | 1,728 | 586 | 172 | 2,314 | 2,996 |
| <i>Unweighted sample size</i> | 2,214 | 782 | 248 | 2,996 | |

²² Fuel poor includes Extreme Fuel Poor Households so 'Total' is the sum of 'Not Fuel Poor' and 'Fuel Poor'. This applies to all the following tables.

Table 21: Fuel Poverty by household characteristics (000s)

| | Not Fuel Poor | Fuel Poor | Extreme Fuel Poor | Total | <i>Unweighted sample size</i> |
|-------------------------------|----------------------|------------------|--------------------------|--------------|-------------------------------|
| Tenure | | | | | |
| Owner-occupier | 1,113 | 362 | 127 | 1,475 | 1,949 |
| LA/other public | 276 | 116 | 14 | 392 | 517 |
| HA/co-op | 197 | 54 | 12 | 252 | 304 |
| Private-rented | 141 | 53 | 19 | 194 | 226 |
| Private Sector | 1,255 | 415 | 146 | 1,670 | 2,175 |
| Social Sector | 473 | 171 | 26 | 644 | 821 |
| Household Type | | | | | |
| Single adult | 261 | 96 | 28 | 357 | 432 |
| Small adult | 393 | 55 | 16 | 448 | 537 |
| Single parent | 93 | 31 | 4 | 124 | 151 |
| Small family | 292 | 17 | 3 | 309 | 415 |
| Large family | 144 | 12 | 0 | 156 | 218 |
| Large adult | 179 | 30 | 13 | 209 | 287 |
| Older smaller | 209 | 151 | 48 | 361 | 494 |
| Single pensioner | 159 | 190 | 59 | 349 | 462 |
| Weekly Income Band | | | | | |
| < £100 p.w. | 9 | 89 | 61 | 99 | 127 |
| £100 -199.99 p.w. | 154 | 297 | 76 | 451 | 590 |
| £200 -299.99 p.w. | 340 | 121 | 27 | 462 | 610 |
| £300 -399.99 p.w. | 263 | 38 | 5 | 301 | 390 |
| £400 -499.99 p.w. | 245 | 18 | - | 263 | 344 |
| £500 -699.99 p.w. | 336 | 13 | 1 | 349 | 464 |
| £700+ | 368 | 3 | - | 370 | 471 |
| Council Tax Band | | | | | |
| A | 368 | 135 | 31 | 502 | 660 |
| B | 432 | 152 | 36 | 584 | 749 |
| C | 271 | 68 | 16 | 339 | 458 |
| D | 226 | 76 | 24 | 302 | 382 |
| E | 207 | 70 | 30 | 277 | 356 |
| F | 130 | 37 | 18 | 167 | 204 |
| G | 70 | 35 | 15 | 105 | 129 |
| H | 9 | 2 | - | 11 | 11 |
| Unobtainable | 15 | 11 | 3 | 26 | 47 |
| All Scotland | | | | | |
| | 1,728 | 586 | 172 | 2,314 | 2,996 |
| <i>Unweighted sample size</i> | 2,214 | 782 | 248 | 2,996 | |

Table 22: Fuel poverty by dwellings characteristics (Row %)

| | Not Fuel Poor | Fuel Poor | Extreme Fuel Poor | Total | <i>Unweighted sample size</i> |
|-------------------------------|----------------------|------------------|--------------------------|--------------|-------------------------------|
| Type of Dwelling | | | | | |
| Detached | 68 | 32 | 14 | 100 | 725 |
| Semi detached | 74 | 26 | 8 | 100 | 659 |
| Terraced | 75 | 25 | 7 | 100 | 687 |
| Tenement | 81 | 19 | 4 | 100 | 535 |
| Other flats | 77 | 23 | 4 | 100 | 390 |
| Age of Dwelling | | | | | |
| Pre-1919 | 69 | 31 | 14 | 100 | 562 |
| 1919-1944 | 70 | 30 | 8 | 100 | 394 |
| 1945-1964 | 72 | 28 | 7 | 100 | 757 |
| 1965-1982 | 74 | 26 | 6 | 100 | 692 |
| Post-1982 | 87 | 13 | 3 | 100 | 591 |
| Central Heating Extent | | | | | |
| Full | 76 | 24 | 7 | 100 | 2,801 |
| Partial | 55 | 45 | 12 | 100 | 122 |
| No central heating | 56 | 44 | 20 | 100 | 73 |
| Primary Heating Fuel | | | | | |
| Gas | 78 | 22 | 6 | 100 | 2,178 |
| Oil | 62 | 38 | 18 | 100 | 229 |
| Electric | 66 | 34 | 11 | 100 | 502 |
| Other fuel type | 55 | 45 | 18 | 100 | 87 |
| NHER Band | | | | | |
| Poor | 42 | 58 | 27 | 100 | 156 |
| Moderate | 66 | 34 | 11 | 100 | 1,434 |
| Good | 85 | 15 | 2 | 100 | 1,406 |
| Urban/rural | | | | | |
| Urban | 77 | 23 | 6 | 100 | 2,347 |
| Rural | 63 | 37 | 16 | 100 | 649 |
| Mains Gas Grid | | | | | |
| On Grid | 76 | 24 | 6 | 100 | 2,449 |
| Not on Grid | 62 | 38 | 17 | 100 | 547 |
| All Scotland | | | | | |
| | 75 | 25 | 7 | 100 | 2,996 |
| <i>Unweighted sample size</i> | 2,214 | 782 | 248 | 2,996 | |

Table 23: Fuel Poverty by household characteristics (Row %)

| | Not Fuel Poor | Fuel Poor | Extreme Fuel Poor | Total | <i>Unweighted sample size</i> |
|-------------------------------|----------------------|------------------|--------------------------|--------------|-------------------------------|
| Tenure | | | | | |
| Owner-occupier | 75 | 25 | 9 | 100 | 1,949 |
| LA/other public | 70 | 30 | 4 | 100 | 517 |
| HA/co-op | 78 | 22 | 5 | 100 | 304 |
| Private-rented | 73 | 27 | 10 | 100 | 226 |
| Private Sector | 75 | 25 | 9 | 100 | 2,175 |
| Social Sector | 74 | 26 | 4 | 100 | 821 |
| Household Type | | | | | |
| Single adult | 73 | 27 | 8 | 100 | 432 |
| Small adult | 88 | 12 | 4 | 100 | 537 |
| Single parent | 75 | 25 | 3 | 100 | 151 |
| Small family | 94 | 6 | 1 | 100 | 415 |
| Large family | 92 | 8 | 0 | 100 | 218 |
| Large adult | 86 | 14 | 6 | 100 | 287 |
| Older smaller | 58 | 42 | 13 | 100 | 494 |
| Single pensioner | 46 | 54 | 17 | 100 | 462 |
| Weekly Income Band | | | | | |
| < £100 p.w. | 9 | 91 | 62 | 100 | 127 |
| £100 -199.99 p.w. | 34 | 66 | 17 | 100 | 590 |
| £200 -299.99 p.w. | 74 | 26 | 6 | 100 | 610 |
| £300 -399.99 p.w. | 87 | 13 | 2 | 100 | 390 |
| £400 -499.99 p.w. | 93 | 7 | - | 100 | 344 |
| £500 -699.99 p.w. | 96 | 4 | 0 | 100 | 464 |
| £700+ | 99 | 1 | - | 100 | 471 |
| Council Tax Band | | | | | |
| A | 73 | 27 | 6 | 100 | 660 |
| B | 74 | 26 | 6 | 100 | 749 |
| C | 80 | 20 | 5 | 100 | 458 |
| D | 75 | 25 | 8 | 100 | 382 |
| E | 75 | 25 | 11 | 100 | 356 |
| F | 78 | 22 | 11 | 100 | 204 |
| G | 66 | 34 | 14 | 100 | 129 |
| H | 85 | 15 | - | 100 | 11 |
| Unobtainable | 58 | 42 | 10 | 100 | 47 |
| All Scotland | | | | | |
| | 75 | 25 | 7 | 100 | 2,996 |
| <i>Unweighted sample size</i> | 2,214 | 782 | 248 | 2,996 | |

62. Over 50% of single pensioner households (190,000) and around two fifths of older smaller households²³ (151,000) were fuel poor, making them more likely than other household types to experience fuel poverty. 17% of single pensioner households and 13% of older smaller households experienced extreme fuel poverty. 27% of single adult households (96,000) were also in fuel poverty. Family and non-pensioner couple households were least likely to be fuel poor (Tables 21 and 23 and Figure 7).
63. Fuel poverty is, of course, highly correlated with income. The likelihood of experiencing fuel poverty increases as household income decreases. Almost all, 91%, of those in the lowest income band (less than £100 per week) are fuel poor. More than two thirds of households (62,000) in this income band experience extreme fuel poverty compared with around 1,000 households in the top three income bands together and 17% of households (76,000) in the second lowest income band (Tables 21 and 23 and Figure 7).
64. 35% of households living in dwellings in council tax band G are fuel poor compared with around a quarter of those in band A-F, probably because the dwellings are more likely to be larger, less energy efficient houses (Tables 21 and 23).
65. Rural households are more susceptible to fuel poverty than urban households. 37% of those in rural areas suffer fuel poverty compared with just over a fifth of urban households. 16% of rural households are in extreme fuel poverty, making extreme fuel poverty almost three times as likely for a rural household than for an urban household (Table 20 and 22 and Figure 7).
66. Likewise, those not on the gas grid are also around three times as likely to be in extreme fuel poverty as those who are on the gas grid. Around 38% of those households in dwellings not on the gas grid are fuel poor compared with 24% of those who are (Tables 20 and 22).

²³ Mostly pensioner couples

4 Housing Quality

4.1 The Scottish Housing Quality Standard

67. The Scottish Housing Quality Standard (SHQS) was announced by the Minister for Communities in February 2004²⁴. All social landlords must ensure that all of their dwellings pass the SHQS by 2015. The SHQS consists of 5 criteria; the dwelling must be:
- Above the statutory Tolerable Standard;²⁵
 - Free from serious disrepair;
 - Energy efficient;
 - With modern facilities and services;
 - Healthy, safe and secure.
68. Estimates of failure rates from the 2002 SHCS were produced following the announcement. Fieldwork for the 2003/4 survey began in October 2003, before the final clarification of the SHQS in July 2004²⁶. Thus the 2003/4 survey (and the 2002 survey) did not gather all the information required to fully assess dwellings against the SHQS. The surveys did not cover the number of sockets in the kitchen, safety of gas and oil systems, kitchen layout, kitchen safety, kitchen storage and disrepair to attached garages. This was rectified in the 2004/5 and 2005/6 surveys in which all of these areas were included. Given the profile of failures across the SHQS criteria, we believe the addition of this information would not materially affect the estimates of overall failure already published.
69. However, in preparing the SHQS tables this year, an error in the SHQS analysis for 2004/05 and 2005/06 was found. The error was in the SHQS assessment of common entrances for dwellings with common parts. The figures for the SHQS for previous years have now been revised.
70. Approximately 68% of dwellings in Scotland failed the SHQS in 2007 (Table 24). This estimate is lower than the rates of failure as 2002 (77%) and 2003/4 (71%).
71. The majority of dwellings that failed the SHQS failed on the energy efficiency criterion. Full efficient central heating²⁷ is a strict requirement of this criterion. (Dwellings with 'inefficient' central heating, even if it is full, will fail). Also crucial is the presence of thermal insulation measures (such as loft, hot water tank and wall insulation, where applicable) in the dwelling. The number of failures on the

²⁴ For more information see letter and notes at: <http://www.scotland.gov.uk/Publications/2004/02/18860/32772>

²⁵ See paragraph 119 for further information on the Tolerable Standard.

²⁶ See letter and notes available at: <http://www.scotland.gov.uk/Publications/2004/07/19725/40741>

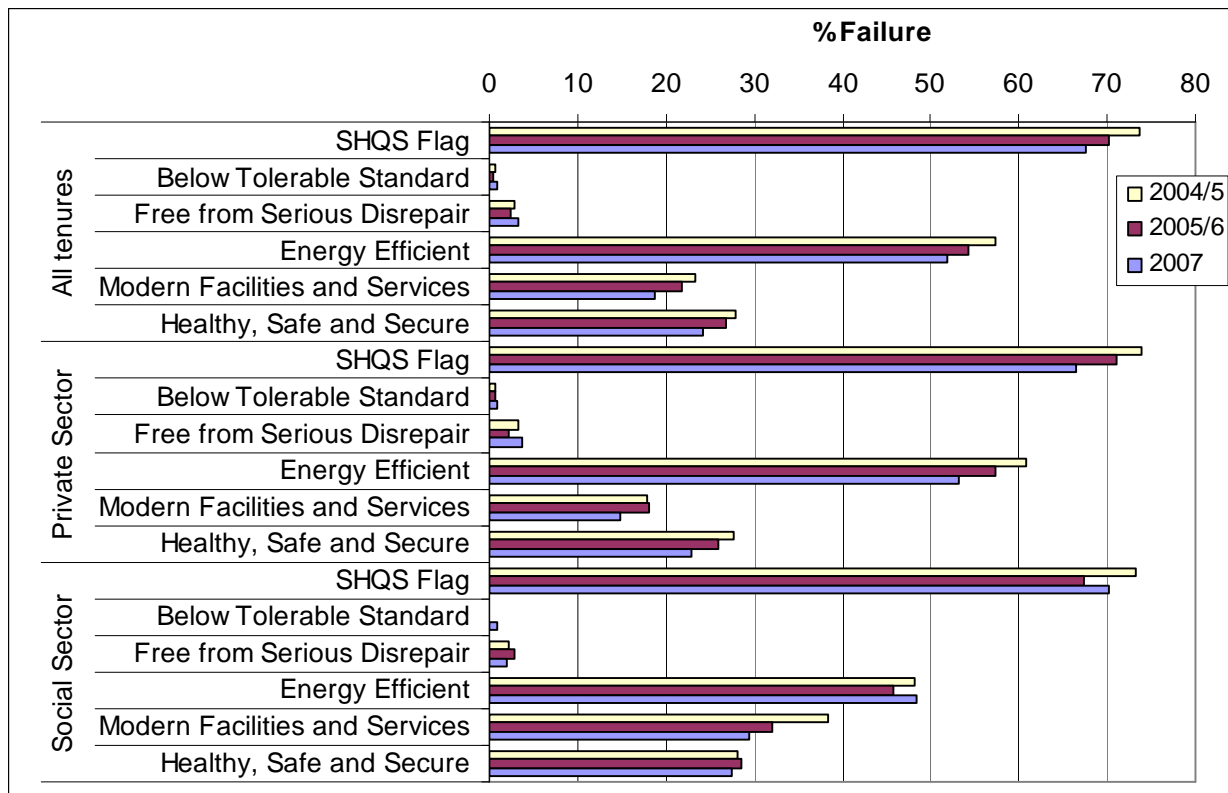
²⁷ The definition of full central heating for SHQS purposes is: "whole dwelling or rooms representing more than 50% of the floor area of the dwelling with the heating controlled from a single point".

modern facilities and services criteria has increased slightly since 2002 because of the additional information collected in the 2004/5, 2005/6 and 2007 surveys.

Table 24: Scottish Housing Quality Standard 2007 (000s and %)

| | SHQS (unobtainables reapportioned) | | <i>Unweighted sample size</i> |
|--------------|--|------------|-----------------------------------|
| | 000s | % | |
| Pass | 736 | 32 | 918 |
| Fail | 1,578 | 68 | 2,093 |
| Total | 2,314 | 100 | 3,011 |

Figure 8: Dwellings by failure to meet Scottish Housing Quality Standard by tenure 2007 (%)



72. The proportions of dwellings with more than one criteria failure are slightly higher than for the 2002 and 2003/4 surveys, with around 1 in 5 dwellings failing on more than one of the criteria (Table 25) but 2002 and 2003/4 have not been revised because some SHQS elements were not recorded.

Table 25: Number of SHQS failures 2002, 2003/4 and 2007 (000s and Column %)

| Number of failures | 2002 | | 2003/4 | | 2004/5 | | 2005/6 | | 2007 | |
|-------------------------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|
| | 000's | % | 000's | % | 000's | % | 000's | % | 000s | % |
| None /unobtainable | 509 | 23 | 688 | 30 | 605 | 26 | 692 | 30 | 750 | 32 |
| 1 | 1,180 | 54 | 1,123 | 50 | 1,025 | 45 | 991 | 43 | 1,008 | 44 |
| 2 | 442 | 20 | 393 | 17 | 484 | 21 | 456 | 20 | 404 | 17 |
| 3 | 53 | 2 | 58 | 3 | 162 | 7 | 162 | 7 | 140 | 6 |
| 4 | 6 | 0 | 6 | 0 | 24 | 1 | 13 | 1 | 11 | 0 |
| 5 | 2 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Total | 2,192 | 100 | 2,269 | 100 | 2,301 | 100 | 2,315 | 100 | 2,314 | 100 |
| <i>Unweighted sample size</i> | <i>5,168</i> | | <i>3,090</i> | | <i>3,093</i> | | <i>3,147</i> | | <i>3,033</i> | |

73. Table 26 shows the number of dwellings passing or failing the SHQS by private or social sector tenure.

Table 26: SHQS by Tenure 2002, 2003/4 and 2007 (000s)²⁸

| SHQS | Tenure | | | | | | | | | |
|-------------------------------|---------------|--------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|
| | 2002 | | 2003/4 | | 2004/5 | | 2005/6 | | 2007 | |
| | Priv | Soc | Priv | Soc | Priv | Soc | Priv | Soc | Priv | Soc |
| | 000s | 000s | 000s | 000s | 000s | 000s | 000s | 000s | 000s | 000s |
| Pass | 356 | 153 | 461 | 189 | 429 | 152 | 466 | 191 | 550 | 185 |
| Fail | 1,182 | 501 | 1,184 | 435 | 1,255 | 456 | 1,229 | 429 | 1,119 | 459 |
| Total | 1,538 | 654 | 1,645 | 624 | 1,684 | 617 | 1,695 | 620 | 1,670 | 644 |
| <i>Unweighted sample size</i> | <i>10,244</i> | <i>4,924</i> | <i>2,179</i> | <i>846</i> | <i>2,291</i> | <i>766</i> | <i>2,298</i> | <i>782</i> | <i>2,186</i> | <i>825</i> |

74. Table 27 shows that the private sector's failure rates overall are roughly the same as the social sector in the period 2002-2007, although in 2007 the private sector has a lower failure rate. The Scottish Government has stated that the entire stock of every social landlord must meet the SHQS criteria by 2015. Private owners and private landlords are currently under no obligation to bring their properties up to a standard which meets the SHQS.

²⁸ Priv = private sector, Soc = social sector

Table 27: SHQS by Tenure 2002, 2003/4 and 2007 (Column %)

| SHQS | Tenure | | | | | | | | | |
|-------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | 2002 | | 2003/4 | | 2004/5 | | 2005/6 | | 2007 | |
| | Priv | Soc | Priv | Soc | Priv | Soc | Priv | Soc | Priv | Soc |
| | % | % | % | % | % | % | % | % | % | % |
| Pass | 23 | 23 | 28 | 30 | 25 | 25 | 27 | 31 | 33 | 29 |
| Fail | 77 | 77 | 72 | 70 | 75 | 75 | 73 | 69 | 67 | 71 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| <i>Unweighted sample size</i> | 10,244 | 4,924 | 2,179 | 846 | 2,291 | 766 | 2,298 | 782 | 2,186 | 825 |

75. Table 28 shows that dwellings in rural areas are slightly more likely to fail the SHQS.

Table 28: SHQS urban/rural breakdown (000s and %)

| SHQS | Urban/Rural Indicator | | | |
|-------------------------------|-----------------------|------------|------------|------------|
| | Urban | | Rural | |
| | 000s | % | 000s | % |
| Pass | 625 | 32 | 111 | 29 |
| Fail | 1,305 | 68 | 273 | 71 |
| Total | 1,930 | 100 | 384 | 100 |
| <i>Unweighted sample size</i> | 2,355 | | 638 | |

4.2 Dampness and Condensation

76. Tables 29 and 30²⁹ indicate that just over 1 in 10 dwellings have condensation in at least one room, whilst very few dwellings in Scotland suffer from either rising or penetrating damp (around 1 in 20). These figures are largely unchanged from those reported from 2002 to 2005/6. 'Any condensation' and 'Any rising or penetrating damp' cover anything from a small damp patch or area of condensation on a single wall in one room to prevalence throughout a dwelling.

²⁹ It was not possible to determine disrepair for one case in the survey. This case has been excluded from all analysis on disrepair.

Table 29: Presence of condensation in dwelling (000s and %)

| Any condensation? | 000s | % | <i>Unweighted sample size</i> |
|--------------------------|--------------|------------|-------------------------------|
| None | 2,058 | 89 | 2,689 |
| Some | 256 | 11 | 343 |
| Total | 2,313 | 100 | 3,032 |

Table 30: Presence of rising or penetrating damp in dwelling (000s and %)

| Any rising or penetrating damp? | 000s | % | <i>Unweighted sample size</i> |
|--|--------------|------------|-------------------------------|
| None | 2,187 | 95 | 2,838 |
| Some | 126 | 5 | 194 |
| Total | 2,313 | 100 | 3,032 |

4.3 Disrepair

77. Data on the state of disrepair of each dwelling is gathered in the physical inspection part of the SHCS. A range of elements - both internal and external - are assessed for the presence of disrepair, the urgency of disrepair (for external and common elements only), the extent of disrepair and in some cases the residual life of the element. These assessments allow an overall picture of the state of dwelling disrepair to be built up. We can therefore estimate the extent of disrepair of various types in Scotland's occupied housing stock. Definitions of the different types of disrepair are given in paragraph 120.
78. 'Any disrepair' covers ALL disrepair, irrespective of extent or seriousness, and can therefore mean anything from a leaking bathroom tap to a missing roof.
79. Table 31 shows the presence of 'any disrepair' by age of dwelling. Almost eighty percent (79%) of dwellings in Scotland have some disrepair. Older dwellings are more likely to have some form of disrepair with those built before 1919 being almost twice as likely to suffer disrepair as those built after 1982.
80. Around three quarters of private sector dwellings have some form of disrepair, compared to 84% of dwellings in the social sector. Dwellings in urban areas are more likely to experience some form of disrepair than those in rural areas.
81. For common and external elements the surveyor is asked to assess the urgency of disrepair. An urgent repair is one which, if not carried out, would cause the fabric of the building to deteriorate further and/or place the health and safety of the occupier at risk. Table 32 shows 'any disrepair' by 'urgency of disrepair'.

Table 31: Presence of any disrepair by age of dwelling, tenure and urban/rural indicator (000s and Row %)

| | Any Disrepair? | | | | Total | | Un-weighted sample size |
|-------------------------------|----------------|-----------|--------------|-----------|--------------|------------|-------------------------|
| | No | | Yes | | 000s | % | |
| | 000s | % | 000s | % | | | |
| Age of Dwelling | | | | | | | |
| Pre-1919 | 37 | 8 | 401 | 92 | 438 | 100 | 570 |
| 1919-1944 | 41 | 14 | 257 | 86 | 299 | 100 | 397 |
| 1945-1964 | 55 | 10 | 501 | 90 | 555 | 100 | 766 |
| 1965-1982 | 122 | 22 | 429 | 78 | 551 | 100 | 699 |
| Post-1982 | 237 | 50 | 233 | 50 | 470 | 100 | 600 |
| Tenure | | | | | | | |
| Owner-occupier | 359 | 24 | 1,115 | 76 | 1,475 | 100 | 1,962 |
| LA/other public | 50 | 13 | 343 | 87 | 392 | 100 | 523 |
| HA/co-op | 51 | 20 | 201 | 80 | 252 | 100 | 311 |
| Private-rented | 32 | 16 | 163 | 84 | 194 | 100 | 236 |
| Private Sector | | | | | | | |
| Private Sector | 391 | 23 | 1,278 | 77 | 1,669 | 100 | 2,198 |
| Social Sector | | | | | | | |
| Social Sector | 100 | 16 | 544 | 84 | 644 | 100 | 834 |
| Urban/Rural | | | | | | | |
| Urban | 391 | 20 | 1,538 | 80 | 1,929 | 100 | 2,373 |
| Rural | 100 | 26 | 284 | 74 | 384 | 100 | 659 |
| All Scotland | | | | | | | |
| All Scotland | 491 | 21 | 1,822 | 79 | 2,313 | 100 | 3,032 |
| <i>Unweighted sample size</i> | <i>600</i> | | <i>2,432</i> | | <i>3,032</i> | | |

82. Figure 9 shows the presence of urgent disrepair, disrepair to critical elements and extensive disrepair in dwellings which have some form of disrepair (i.e. dwellings which have 'any disrepair' as defined above).
83. 'Any disrepair to critical elements' is defined as any disrepair to the critical elements of the dwelling. The critical elements are those whose condition is central to a dwelling being wind and weather proof, structurally stable and safeguarded against further rapid deterioration. Paragraph 120 lists the critical elements.
84. 'Extensive disrepair' is used to identify dwellings where the disrepair present is of relatively greater severity. A detailed definition of extensive disrepair is given in paragraph 120.
85. Urgent disrepair, extensive disrepair and disrepair to critical elements are all subsets of 'any disrepair'.

Table 32: Presence of any disrepair by urgency of disrepair (000s and Column %)

| Any Urgent Disrepair? | Any Disrepair? | | | | Total | | Un-weighted sample size |
|-------------------------------|----------------|------------|--------------|------------|--------------|------------|-------------------------|
| | No | | Yes | | 000s | % | |
| | 000s | % | 000s | % | | | |
| None | | | 655 | 36 | 655 | 28 | 826 |
| Some | | | 888 | 49 | 888 | 38 | 1,222 |
| Not Applicable | 488 | 99 | 270 | 15 | 758 | 33 | 971 |
| Unobtainable | 3 | 1 | 9 | 0 | 12 | 1 | 13 |
| Total | 491 | 100 | 1,822 | 100 | 2,313 | 100 | 3,032 |
| <i>Unweighted Sample Size</i> | <i>600</i> | | <i>2,432</i> | | 3,032 | | |

86. In just under half of dwellings (49%) with some form of disrepair, that disrepair is urgent. 72% of dwellings with disrepair have some disrepair to critical elements whilst over a third (37%) suffer from extensive disrepair. (Tables 33 and 34 and Figures 9a-9c).
87. Table 33 shows that the likelihood of experiencing disrepair to critical elements increases with age of dwelling. Just under three-quarters of pre-1919 dwellings have some form of disrepair to critical elements, compared to a quarter of those built after 1982. Just over half of owner-occupied dwellings or dwellings rented from housing associations/housing co-operatives have some form of critical disrepair compared with 61% of those which are rented from a private landlord and 69% of those rented from a local authority/other public sector organisation.
88. For almost two thirds of dwellings with some disrepair to critical elements the disrepair is urgent (Figure 10).
89. Table 34 shows that 29% of dwellings in Scotland have some extensive disrepair. Following the same trend as 'any disrepair' and 'disrepair to critical elements', newer dwellings are less likely to suffer from extensive disrepair. 43% of dwellings built before 1919 have some extensive disrepair compared with just 13% of those built after 1982. Housing association/housing co-operatives and owner-occupied dwellings are least likely to have some extensive disrepair.
90. In 58% of dwellings with extensive disrepair, the disrepair is classed as 'urgent' (Figure 11).
91. Figure 12 shows the proportion of dwellings in each age group which experience 'any disrepair', 'disrepair to critical elements' and 'extensive disrepair'.

Figure 9: Dwellings with any disrepair: (a) urgency of disrepair (b) some disrepair to critical elements and (c) some extensive disrepair (%)

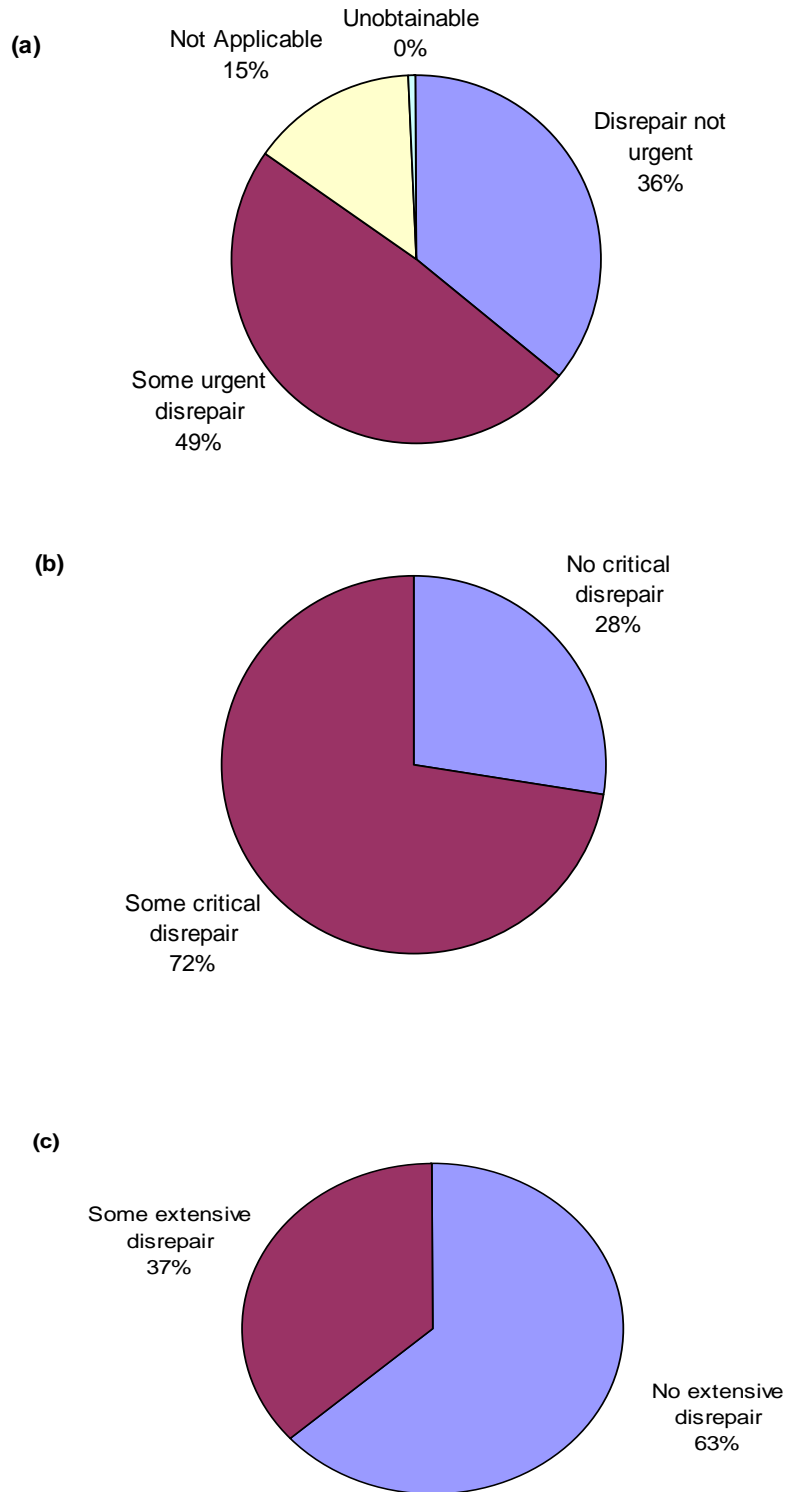


Table 33: Disrepair to critical elements by age of dwelling, tenure and urban/rural indicator (000s and Row %)

| | Any disrepair to critical elements? | | | | Total | | Un-weighted sample size |
|-------------------------------|-------------------------------------|-----------|--------------|-----------|--------------|------------|-------------------------|
| | No | | Yes | | 000s | % | |
| | 000s | % | 000s | % | | | |
| Age of Dwelling | | | | | | | |
| Pre-1919 | 117 | 27 | 321 | 73 | 438 | 100 | 570 |
| 1919-1944 | 103 | 34 | 196 | 66 | 299 | 100 | 397 |
| 1945-1964 | 177 | 32 | 378 | 68 | 555 | 100 | 766 |
| 1965-1982 | 244 | 44 | 307 | 56 | 551 | 100 | 699 |
| Post-1982 | 352 | 75 | 118 | 25 | 470 | 100 | 600 |
| Tenure | | | | | | | |
| Owner-occupier | 678 | 46 | 797 | 54 | 1,475 | 100 | 1,962 |
| LA/other public | 122 | 31 | 271 | 69 | 392 | 100 | 523 |
| HA/co-op | 118 | 47 | 134 | 53 | 252 | 100 | 311 |
| Private-rented | 75 | 39 | 119 | 61 | 194 | 100 | 236 |
| Private Sector | | | | | | | |
| Private Sector | 753 | 45 | 916 | 55 | 1,669 | 100 | 2,198 |
| Social Sector | | | | | | | |
| Social Sector | 240 | 37 | 404 | 63 | 644 | 100 | 834 |
| Urban/Rural | | | | | | | |
| Urban | 834 | 43 | 1,096 | 57 | 1,929 | 100 | 2,373 |
| Rural | 159 | 41 | 224 | 59 | 384 | 100 | 659 |
| All Scotland | | | | | | | |
| All Scotland | 993 | 43 | 1,320 | 57 | 2,313 | 100 | 3,032 |
| <i>Unweighted sample size</i> | <i>1,262</i> | | <i>1,770</i> | | 3,032 | | |

Table 34: Extensive disrepair by age of dwelling, tenure and urban/rural indicator (000s and Row %)

| | Any extensive disrepair? | | | | Total | | Un-weighted sample size |
|-------------------------------|--------------------------|-----------|------------|-----------|--------------|------------|-------------------------|
| | No | | Yes | | 000s | % | |
| | 000s | % | 000s | % | | | |
| Age of Dwelling | | | | | | | |
| Pre-1919 | 251 | 57 | 187 | 43 | 438 | 100 | 570 |
| 1919-1944 | 191 | 64 | 108 | 36 | 299 | 100 | 397 |
| 1945-1964 | 370 | 67 | 185 | 33 | 555 | 100 | 766 |
| 1965-1982 | 424 | 77 | 127 | 23 | 551 | 100 | 699 |
| Post-1982 | 411 | 87 | 59 | 13 | 470 | 100 | 600 |
| Tenure | | | | | | | |
| Owner-occupier | 1,074 | 73 | 400 | 27 | 1,475 | 100 | 1,962 |
| LA/other public | 270 | 69 | 123 | 31 | 392 | 100 | 523 |
| HA/co-op | 180 | 72 | 72 | 28 | 252 | 100 | 311 |
| Private-rented | 123 | 63 | 71 | 37 | 194 | 100 | 236 |
| Private Sector | | | | | | | |
| Private Sector | 1,197 | 72 | 472 | 28 | 1,669 | 100 | 2,198 |
| Social Sector | | | | | | | |
| Social Sector | 450 | 70 | 194 | 30 | 644 | 100 | 834 |
| Urban/Rural | | | | | | | |
| Urban | 1,379 | 71 | 551 | 29 | 1,929 | 100 | 2,373 |
| Rural | 268 | 70 | 115 | 30 | 384 | 100 | 659 |
| All Scotland | | | | | | | |
| All Scotland | 1,647 | 71 | 666 | 29 | 2,313 | 100 | 3,032 |
| <i>Unweighted sample size</i> | 2,121 | | 911 | | 3,032 | | |

Figure 10: Urgent disrepair in dwellings with some form of disrepair to critical elements (%)

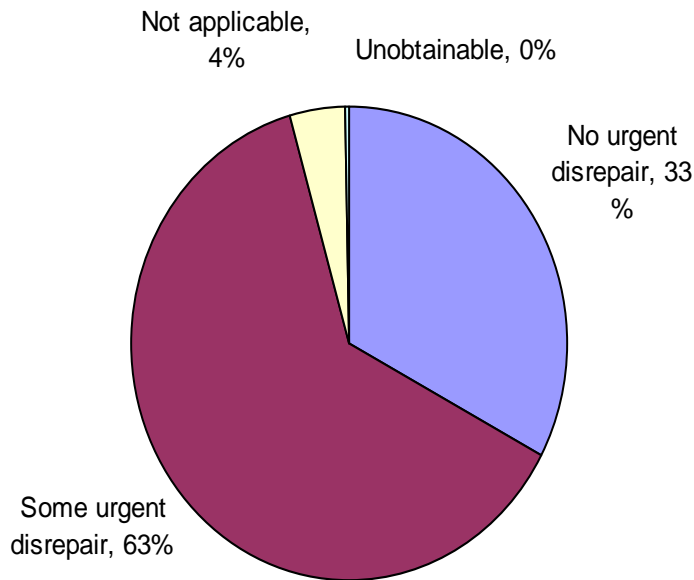


Figure 11: Urgent disrepair in dwellings with some form of extensive disrepair (%)

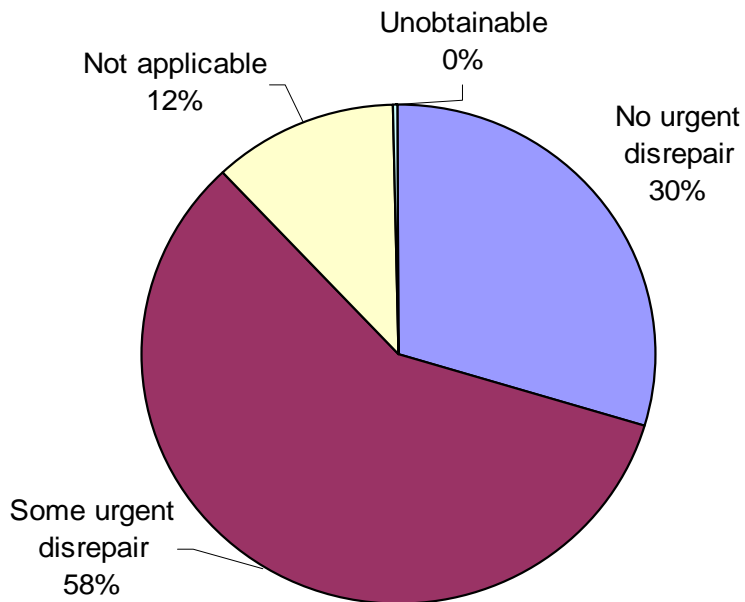
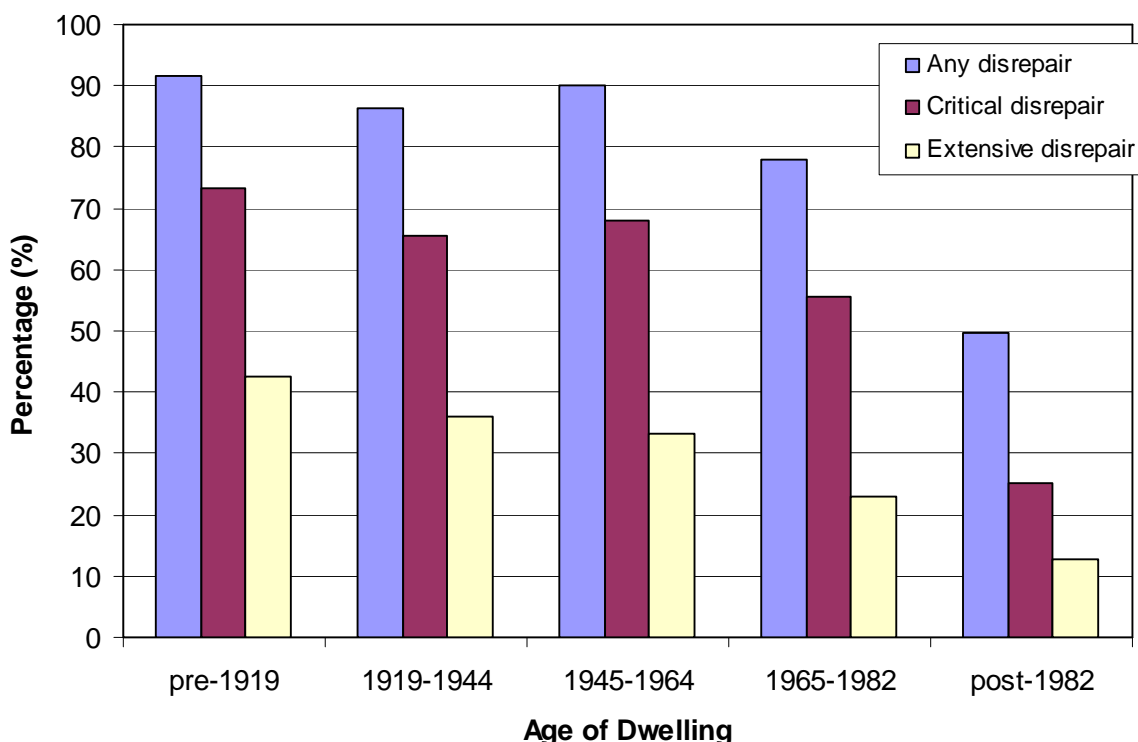


Figure 12: Any, critical and extensive disrepair by age of dwelling (%)



5 Notes and Definitions

Sampling

92. The aim of surveys such as the SHCS is to select a sample which is representative of the population as a whole, thus ensuring that any estimates obtained from the survey data are as close as possible to the true population value. Although the SHCS uses a randomly selected sample, it is not necessarily representative of all households. Some households or dwelling types may be over-represented and others may be under-sampled, and response bias will have a further effect (for example non-response households consisting of a young, single male). In general, the smaller the sample size, the greater the likelihood the estimate could be misleading, so care must be taken when using subsets of the survey sample for analysis.
93. The 'paired' (social and physical) survey response rate is about 60%. Although the SHCS is re-weighted to take non-responses into consideration, we cannot be certain that the weighting process correctly represents the profile of the missing households and their residents.

Confidence intervals

94. Whilst we cannot quantify the extent of bias due to non-response, we can quantify the likely extent of sampling variability by calculating the 'standard error' associated with an estimate. By convention, a '95% confidence interval' is used to demonstrate the variability. On average there is a 1 in 20 chance that the true value will not fall within the given confidence interval or, conversely, there is a 95% chance that the true value will fall within the given confidence interval.
95. Table 35 shows the 95% confidence limits for estimates for a range of percentages calculated from sub-samples of a range of sizes. Note that the confidence limits for estimates of $x\%$ and $(100-x)\%$ are the same. The interpretation and use of this table are best demonstrated by an example.
96. In Table 13, 30% of detached houses were rated 'good' in terms of energy efficiency. To the right of the table it says that the sample size of detached houses was 727. Looking at Table 35 and reading across the 700 row to the 30% column (the nearest to our figures), we get a confidence interval of $\pm 3.4\%$ around the estimate. Thus we can say that we are 95% confident that the true proportion of detached houses with a 'good' energy rating lies between 26.6% and 33.4% ($30\% \pm 3.2\%$).

Design effects

97. However, it is important to adjust these intervals by multiplying by the design effects for the survey. The design effect is the ratio between the variance (average deviation of a set of data points from their mean value) of a variable under the sampling method used (actual) and the variance computed under the assumption of simple random sampling (standard). In short, a design effect of 2 would mean doubling the size of a simple random sample to obtain the same volume of information; a design effect of 0.5 implies the reverse. Design effects adjustments are necessary when adjusting standard errors which are affected by the design and complexity of the survey.
98. Generally speaking, disproportionate stratification and sampling with non-equal probabilities tends to increase standard errors, giving a design factor greater than 1. However, this can be controlled by deliberately oversampling in stratum where the item of interest is either very rare or variable. The impact of non-response weighting on standard errors tends to be, although with exceptions, comparatively limited. The sampling design of the SHCS meets the criteria above in that disproportionate stratification is applied across the 32 local authority areas and oversampling of remote rural areas – for example in Shetlands and Orkney – is used to account for the aforementioned issues. As a result, one would expect the design factor to be above 1 although only modestly so.

Table 35: 95% Confidence Limits for estimates based on SHCS sub-samples of various sizes (without design effects)

| Sub-sample size (i.e. the "n=" value corresponding to 100%) | Estimate | | | | | | | | | | | |
|--|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 1% | 2% | 5% | 10% | 15% | 20% | 25% | 30% | 35% | 40% | 45% | |
| | or | or | or | or | or | or | or | or | or | or | or | |
| | 99% | 98% | 95% | 90% | 85% | 80% | 75% | 70% | 65% | 60% | 55% | 50% |
| | percentage points (+ / -) | | | | | | | | | | | |
| 100 | 2.0 | 2.7 | 4.3 | 5.9 | 7.0 | 7.8 | 8.5 | 9.0 | 9.3 | 9.6 | 9.8 | 9.8 |
| 150 | 1.6 | 2.2 | 3.5 | 4.8 | 5.7 | 6.4 | 6.9 | 7.3 | 7.6 | 7.8 | 8.0 | 8.0 |
| 200 | 1.4 | 1.9 | 3.0 | 4.2 | 4.9 | 5.5 | 6.0 | 6.4 | 6.6 | 6.8 | 6.9 | 6.9 |
| 250 | 1.2 | 1.7 | 2.7 | 3.7 | 4.4 | 5.0 | 5.4 | 5.7 | 5.9 | 6.1 | 6.2 | 6.2 |
| 300 | 1.1 | 1.6 | 2.5 | 3.4 | 4.0 | 4.5 | 4.9 | 5.2 | 5.4 | 5.5 | 5.6 | 5.7 |
| 350 | 1.0 | 1.5 | 2.3 | 3.1 | 3.7 | 4.2 | 4.5 | 4.8 | 5.0 | 5.1 | 5.2 | 5.2 |
| 400 | 1.0 | 1.4 | 2.1 | 2.9 | 3.5 | 3.9 | 4.2 | 4.5 | 4.7 | 4.8 | 4.9 | 4.9 |
| 450 | 0.9 | 1.3 | 2.0 | 2.8 | 3.3 | 3.7 | 4.0 | 4.2 | 4.4 | 4.5 | 4.6 | 4.6 |
| 500 | 0.9 | 1.2 | 1.9 | 2.6 | 3.1 | 3.5 | 3.8 | 4.0 | 4.2 | 4.3 | 4.4 | 4.4 |
| 600 | 0.8 | 1.1 | 1.7 | 2.4 | 2.9 | 3.2 | 3.5 | 3.7 | 3.8 | 3.9 | 4.0 | 4.0 |
| 700 | 0.7 | 1.0 | 1.6 | 2.2 | 2.6 | 3.0 | 3.2 | 3.4 | 3.5 | 3.6 | 3.7 | 3.7 |
| 800 | 0.7 | 1.0 | 1.5 | 2.1 | 2.5 | 2.8 | 3.0 | 3.2 | 3.3 | 3.4 | 3.4 | 3.5 |
| 900 | 0.7 | 0.9 | 1.4 | 2.0 | 2.3 | 2.6 | 2.8 | 3.0 | 3.1 | 3.2 | 3.3 | 3.3 |
| 1,000 | 0.6 | 0.9 | 1.4 | 1.9 | 2.2 | 2.5 | 2.7 | 2.8 | 3.0 | 3.0 | 3.1 | 3.1 |
| 1,100 | 0.6 | 0.8 | 1.3 | 1.8 | 2.1 | 2.4 | 2.6 | 2.7 | 2.8 | 2.9 | 2.9 | 3.0 |
| 1,200 | 0.6 | 0.8 | 1.2 | 1.7 | 2.0 | 2.3 | 2.5 | 2.6 | 2.7 | 2.8 | 2.8 | 2.8 |
| 1,300 | 0.5 | 0.8 | 1.2 | 1.6 | 1.9 | 2.2 | 2.4 | 2.5 | 2.6 | 2.7 | 2.7 | 2.7 |
| 1,400 | 0.5 | 0.7 | 1.1 | 1.6 | 1.9 | 2.1 | 2.3 | 2.4 | 2.5 | 2.6 | 2.6 | 2.6 |
| 1,500 | 0.5 | 0.7 | 1.1 | 1.5 | 1.8 | 2.0 | 2.2 | 2.3 | 2.4 | 2.5 | 2.5 | 2.5 |
| 1,600 | 0.5 | 0.7 | 1.1 | 1.5 | 1.7 | 2.0 | 2.1 | 2.2 | 2.3 | 2.4 | 2.4 | 2.5 |
| 1,700 | 0.5 | 0.7 | 1.0 | 1.4 | 1.7 | 1.9 | 2.1 | 2.2 | 2.3 | 2.3 | 2.4 | 2.4 |
| 1,800 | 0.5 | 0.6 | 1.0 | 1.4 | 1.6 | 1.8 | 2.0 | 2.1 | 2.2 | 2.3 | 2.3 | 2.3 |
| 1,900 | 0.4 | 0.6 | 1.0 | 1.3 | 1.6 | 1.8 | 1.9 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 |
| 2,000 | 0.4 | 0.6 | 1.0 | 1.3 | 1.6 | 1.8 | 1.9 | 2.0 | 2.1 | 2.1 | 2.2 | 2.2 |
| 2,200 | 0.4 | 0.6 | 0.9 | 1.3 | 1.5 | 1.7 | 1.8 | 1.9 | 2.0 | 2.0 | 2.1 | 2.1 |
| 2,400 | 0.4 | 0.6 | 0.9 | 1.2 | 1.4 | 1.6 | 1.7 | 1.8 | 1.9 | 2.0 | 2.0 | 2.0 |
| 2,600 | 0.4 | 0.5 | 0.8 | 1.2 | 1.4 | 1.5 | 1.7 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 |
| 2,800 | 0.4 | 0.5 | 0.8 | 1.1 | 1.3 | 1.5 | 1.6 | 1.7 | 1.8 | 1.8 | 1.8 | 1.9 |
| 3,000 | 0.4 | 0.5 | 0.8 | 1.1 | 1.3 | 1.4 | 1.5 | 1.6 | 1.7 | 1.8 | 1.8 | 1.8 |
| 3,200 | 0.3 | 0.5 | 0.8 | 1.0 | 1.2 | 1.4 | 1.5 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 |
| 3,400 | 0.3 | 0.5 | 0.7 | 1.0 | 1.2 | 1.4 | 1.5 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 |
| 3,600 | 0.3 | 0.5 | 0.7 | 1.0 | 1.2 | 1.3 | 1.4 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 |
| 3,800 | 0.3 | 0.4 | 0.7 | 1.0 | 1.1 | 1.3 | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 |

99. Table 36 shows two distinct design factors for the SHCS 2007. They are 1.13 and 1.11 for the Physical and Social surveys respectively. When using a mixture of the Physical and Social survey, the Physical Survey design factor must be used. The design factors for the 2007 SHCS have followed a decreasing trend since the 2004/05 SHCS - this translates as improved *effectiveness* in the sampling method, though this may be chance. When producing estimates at local authority level, no design factor is necessary for adjusting standard errors as simple random sampling is carried out *within* each local authority.
100. Table 36 shows the design factors for all the SHCS surveys since 1991.
101. Confidence intervals for the mean NHER and SAP scores cannot be calculated from Table 35 (since they are not proportions) and so are provided explicitly in Tables 8, 11, 12, and 15-18.
102. The median tends to be a better measure of central tendency than the mean for most SHCS results as it is less affected by skewed distributions and the small number of outlying values which naturally occur in the data.
103. Numbers of cases are rounded to the nearest thousand and percentages to the nearest integer. This rounding may mean that in some cases the percentages do not add up to 100. A blank cell represents no survey cases. Zeroes correspond to either a count of less than 500 or a percentage of less than 0.5%.

Table 36: Design Factors for SHCS

| Year | Design Factor | |
|---------|-----------------|---------------|
| | Physical Weight | Social Weight |
| 1991 | 1.09 | 1.09 |
| 1996 | 1.11 | 1.11 |
| 2002 | 1.11 | 1.10 |
| 2003/04 | 1.14 | 1.13 |
| 2004/05 | 1.18 | 1.17 |
| 2005/06 | 1.14 | 1.14 |
| 2007 | 1.13 | 1.11 |

Dwelling types

104. The SHCS uses the following definitions of dwelling types:

- Detached house – a house that is free standing with no party walls;
- Semi-detached house – a house that is only attached to one other dwelling, commercial premise etc. The two properties taken together should be detached from any other properties;
- Terraced house – a house forming part of a row of three or more dwellings, commercial premises etc;
- Tenement flat – a dwelling within a common block of two or more floors (commonly up to five storeys but may be higher in certain circumstances) where some or all of the flats have a shared or common vertical access. The selected dwelling need not share the access, but may be situated within the block with shared/common access (own door flat);
- 4-in-a-block – each flat in a block has its own independent access. Flats on the upper level have an internal or external stair;
- Tower/slab – flats in a high rise (ten or more storeys) or flats where the common circulation is predominantly horizontal (maisonette, balcony or gallery access);
- Flat from a conversion – flats resulting from the conversion of a house only. A flat converted from a non-residential building (e.g. a warehouse) is classified according to the above flat types.

Household types

105. Households are allocated to one of eight types as shown below:

- Single adult: 1 adult of non-pensionable age and no children;
- Small adult: 2 adults of non-pensionable age and no children;
- Single parent: 1 adult of any age and 1 or more children;
- Small family: 2 adults and 1 or 2 children;
- Large family: 2 adults and 3 or more children or 3 or more adults and 1 or more children;
- Large adult: 3 or more adults and no children;
- Older smaller: 2 adults at least one of whom is of pensionable age and no children;
- Single pensioner: 1 adult of pensionable age and no children.

Energy Ratings and Labels

106. The way a building is constructed, insulated, heated and ventilated and the type of fuel used, all contribute to its energy consumption and carbon emissions. The use of 'energy labels' provides a method of demonstrating the results of complex calculations in an easy-to-understand way.

National Homes Energy Rating (NHER)

107. The NHER assessment procedure is not based on what a household actually spends on fuel. It is based on a model (produced by the National Energy Services) of the theoretical costs ('Total Energy costs') of maintaining a standard heating regime for a standard level of occupancy derived from knowledge of the appliances, fuel sources, insulation, size and dwelling type of the premises. Total energy costs include space and water heating, lighting, standard domestic appliances (e.g. washing machine) and standing charges. The model contains a factor for local climate variations which take into account differences across the UK. In reality household fuel use may be different to that assumed in the model.
108. Level 0 is the simplest of the four NHER assessment levels. It involves measuring up to 19 items and takes about 5 minutes per dwelling. The SHCS uses an enhanced level 0 assessment which includes many of the items recorded in the level 1 assessment and 1 item recorded in the level 2 assessment. At this level, the scale, used properly, does not allow scores for individual dwellings to be quoted, but does give the distribution of NHER across subsets of greater than 100 dwellings and therefore the stock as a whole. For further information see the SHCS 2002 National Report Technical Annex 9.

Standard Assessment Procedures (SAP)

109. SAP is the Government's Standard Assessment Procedure for Energy Rating of Dwellings.

SAP 2005

110. SAP 2005 is adopted by government as part of the UK national methodology for calculation of the energy performance of buildings.
111. It is scaled from 1 (poor) to 100 (excellent) and reflects the energy cost per square metre for the lighting, space and water heating of a dwelling based on a single point in England. SAP takes no account of geography or climatic conditions.
112. It is used to demonstrate compliance with building regulations for dwellings - Part L (England and Wales), Section 6 (Scotland) and Part F (Northern Ireland) - and to provide energy ratings for dwellings.

SAP 2001

113. The SHCS also reports on the previous version of SAP (SAP 2001) for comparability with previous surveys. It is scaled from 1 (poor) to 120 (excellent). SAP 2001 only takes space and water heating into account (whereas SAP 2005 also includes lighting). As with all versions of SAP it takes no account of regional or climatic conditions in its calculation.

Energy Performance Certificate (EPC)

- 114. The EPC is a measure being introduced to promote the improvement of energy efficiency of our buildings. It is part of a programme of changes being rolled out across Europe to reflect legislation.
- 115. The Energy Efficiency Rating (EER) letter of an EPC reflects the SAP 2005 score in a simplified form and, similar to those used for electrical white goods; the higher the rating the more energy efficient the home and the lower the fuel bills should be.

| EER | SAP 2005 Rating |
|------------|------------------------|
| A | 92 – 100 |
| B | 81 – 91 |
| C | 69 – 80 |
| D | 55 – 68 |
| E | 39 – 54 |
| F | 21 – 38 |
| G | 1 – 20 |

116. The SHCS emulates SAP 2005 and EPC's from the SAP 2001 scores together with the fuel use based on Table 16 of the SAP Methodology. Again, the EPC does not reflect climatic differences across Scotland. So a house in Galloway with the same EPC rating as a house in Shetland (or in Cornwall) indicates that the quality of the house is similar in respect of EPC factors, but does not fully reflect the actual level of energy required to heat a dwelling in those different climates.

Fuel Poverty

117. The concept of fuel poverty used in this report is based on a theoretical calculation of how much it would cost to heat a dwelling according to a specified regime (See foot notes 15, 16 and 17). It does not utilise information on how much a household actually spends on fuel. In reality households may choose to heat their dwellings in a different manner to that assumed in the model.

Energy Prices

118. Tables 37 and 38 show how energy prices have increased between May 1996 and July 2007 - the latest period for which SHCS data is available. Using changes in the index for fuel and light as a broad indicator of changes in fuel prices faced by households it is notable that between 1996 and 2002, when the proportion of households in fuel poverty fell to less than 38% of its 1996 value (Table 19), the price of fuel and light decreased by 17% in real terms. By 2005 the real price of fuel and light was 15% above its 1996 level and the proportion of fuel poor households was around two thirds of its 1996 level. The real price of fuel and light increased by 24% from May 2005 (the midpoint of the 2004/5 survey year) to May 2006 (the midpoint of the 2005/6 survey year) whereas the overall RPI (Retail Price Index) increase was 3% in the same period. In the period May 2006 and July 2007, fuel prices rose about 6% (depending on the mix of fuels used) - a relatively stable period of fuel price increases compared to 2008,

Table 37: Retail Price Index fuel components, May 1996 to May 2007

| | Current fuel price indices | | | | | |
|----------------------------|----------------------------|-------|-------------|--------------|----------------|----------------|
| | Coal and smokeless fuels | Gas | Electricity | Heating oils | Fuel and light | Petrol and oil |
| May-96 | 118.6 | 112.7 | 120.9 | 94.2 | 116.4 | 134.7 |
| May-02 | 139.3 | 114.0 | 105.2 | 117.2 | 111.1 | 182.8 |
| May-03 | 142.2 | 115.5 | 105.9 | 118.6 | 112.2 | 184.3 |
| May-04 | 146.6 | 123.5 | 111.9 | 146.2 | 120.3 | 199.3 |
| May-05 | 163.6 | 139.8 | 123.1 | 172.2 | 134.8 | 209.0 |
| May-06 | 178.5 | 185.2 | 150.1 | 222.0 | 170.2 | 236.1 |
| July-07 | 188.6 | 196.2 | 161.4 | 214.0 | 179.7 | 234.8 |
| % change May-06 to July-07 | 5.6% | 5.9% | 7.5% | -3.6% | 5.6% | -0.5% |

Source: Quarterly Energy Prices Tables³⁰

³⁰ Quarterly Energy Prices: tables available at <http://stats.berr.gov.uk/energystats/qep213.xls>

Table 38: Retail Price Index fuel components relative to the GDP deflator, May 1996 to May 2007

| | Fuel price index numbers relative to the GDP deflator | | | | | | |
|----------------------------|---|-------|-------------|--------------|----------------|----------------|--------------|
| | Coal and smokeless fuels | Gas | Electricity | Heating oils | Fuel and light | Petrol and oil | GDP Deflator |
| May-96 | 95.6 | 90.8 | 97.4 | 75.9 | 93.8 | 108.5 | 124.1 |
| May-02 | 98.4 | 80.6 | 74.3 | 82.8 | 78.5 | 129.2 | 141.5 |
| May-03 | 97.6 | 79.3 | 72.7 | 81.4 | 77.0 | 126.5 | 145.7 |
| May-04 | 98.3 | 82.8 | 75.0 | 98.0 | 80.6 | 133.6 | 149.2 |
| May-05 | 106.7 | 91.2 | 80.3 | 112.3 | 87.9 | 136.3 | 153.3 |
| May-06 | 114.7 | 119.0 | 96.5 | 142.6 | 109.3 | 151.7 | 155.6 |
| July-07 | 116.3 | 121.0 | 99.5 | 132.0 | 110.8 | 144.8 | 162.2 |
| | | | | | | | |
| % change May-06 to July-07 | 1.4% | 1.7% | 3.1% | -7.4% | 1.4% | -4.5% | 4.2% |

Source: Quarterly Energy Prices Tables³¹

The Tolerable Standard

119. The Tolerable Standard³² is the minimum condition required by Scottish Law for a dwelling to be habitable. It was introduced in the 1969 Housing Act and was updated in the 1987 and 2001 Acts. The requirements of the Act are that the dwelling:

- Is structurally stable;
- Is substantially free from rising and penetrating damp;
- Has satisfactory provision for natural and artificial light, for ventilation and for heating;
- Has an adequate piped supply of wholesome water within the house;
- Has a sink provided with a satisfactory supply of hot and cold water within the house;
- Has a WC available for the exclusive use of the occupants of the house suitably located within the house;
- Has a fixed bath/shower and wash-hand basin all with a satisfactory supply of hot and cold water suitably located within the house;
- Has an effective system for the drainage and disposal of foul and surface water;
- Has satisfactory facilities for the cooking of food within the house;
- Has satisfactory access to all external doors and outbuildings.

³¹ Quarterly Energy Prices Tables available at <http://berr.gov.uk/energystats/qep211.xls>

³² For further information see the SHCS 2002 National Report Technical Annex 7 at <http://www.scotland.gov.uk/Topics/Statistics/SHCS/NationalReport2002>

A failure to meet one or more of these criteria will result in a dwelling being declared Below Tolerable Standard (BTS). In such cases local authorities are required to act either through closure, demolition or improvement of the dwelling.

Disrepair

120. This report uses three different types of disrepair to describe the state of disrepair of a dwelling:

- Any disrepair – any disrepair, no matter how small, to any element of the dwelling;
- Urgent disrepair – any disrepair which if not rectified would cause the fabric of the building to deteriorate further and/or place the health and safety of the occupier at risk. Urgency of disrepair is only assessed for external and common elements;
- Disrepair to critical elements - any disrepair to the critical elements of the dwelling. The critical elements are those whose condition is central to a dwelling being wind and weather proof, structurally stable and safeguarded against further rapid deterioration. They are as follows:
 - Roof covering;
 - Roof structure;
 - Chimney stacks;
 - Flashings;
 - Roof gutters and downpipes;
 - External walls – finish;
 - External walls – structure;
 - Access decks and balustrades (common areas – flats only);
 - Foundations;
 - Damp proof course;
 - External doors and windows (dwelling only);
 - Doors, screens, windows and roof lights (common areas – flats only);
 - Party walls – structure;
 - Floor structure;
 - Floor finish;
 - Dry rot/wet rot.
- Extensive disrepair – a score of 2 or more on the 10-point repair scale and/or a score of 'medium' or 'renew' on the 5-point repair scale or dry/wet rot in two or more rooms. Extensive disrepair is calculated in order to identify those dwellings where any disrepair present is of a relatively greater severity.

Urban Rural Classifications

121. The SHCS uses the 8-category Scottish Executive Urban/Rural Classification 2005-06³³. The definitions of the 8 categories are in Table 39 below. When looking for different characteristics in urban and rural areas, it can be more useful to group the 8 categories into 2 gross urban and rural categories. This requires a definition of what constitutes urban and rural. The Scottish Government’s core definition of rurality classifies settlements of less than 3,000 people as rural. The 8-category urban/rural classification can be collapsed to the core definition:

- Urban = Large Urban Areas, Other Urban Areas, Accessible Small Towns, Remote Small Towns, Very Remote Small Towns i.e. categories 1 to 5;
- Rural = Accessible Rural, Remote Rural, Very Remote Rural i.e. categories 6 to 8.

122. The full classification can be grouped in differing ways to meet user needs, for example a six category version can be used. In that version, ‘Remote Small Towns’ and ‘Very Remote Small Towns’ are grouped into ‘Remote Small Towns’; and ‘Remote Rural’ and ‘Very Remote Rural’ are grouped into ‘Remote Rural’. In this report any urban/rural breakdown uses the core definition of rurality outlined in the previous paragraph.

Table 39: Scottish Executive 8 category Urban/Rural Classification 2005-2006

| Scottish Executive Urban/Rural Classification | |
|--|--|
| 1 Large Urban Areas | Settlements of over 125,000 people. |
| 2 Other Urban Areas | Settlements of 10,000 to 125,000 people. |
| 3 Accessible Small Towns | Settlements of between 3,000 and 10,000 people and within 30 minutes drive of a settlement of 10,000 or more. |
| 4 Remote Small Towns | Settlements of between 3,000 and 10,000 people and with a drive time of between 30 and 60 minutes to a settlement of 10,000 or more. |
| 5 Very Remote Small Towns | Settlements of between 3,000 and 10,000 people and with a drive time of > 60 minutes to a settlement of 10,000 or more. |
| 6 Accessible Rural | Settlements of less than 3,000 people and within 30 minutes drive of a settlement of 10,000 or more. |
| 7 Remote Rural | Settlements of less than 3,000 people and with a drive time of between 30 and 60 minutes to a settlement of 10,000 or more. |
| 8 Very Remote Rural | Settlements of less than 3,000 people and with a drive time of over 60 minutes to a settlement of 10,000 or more. |

³³ More details can be found at: <http://www.scotland.gov.uk/Publications/2006/07/31114822/3>